Lectures
ON
SYPHILITIC INOCULATION,
AND ITS
RELATIONS TO VACCINATION.

By HENRY LEE, Esq., F.R.C.S.,
HONORARY FELLOW OF KING'S COLLEGE, LONDON; LECTURER ON SURGICAL PATHOLOGY AT ST. GEORGE'S HOSPITAL.

LECTURE VI.
TWOFOLD INOCULATION.

It has been shown that the syphilitic disease was communicated at Rivalta to a number of patients by means of vaccination. A very important question now arises: Was it the syphilitic and the vaccine diseases which alone were thus conveyed, or that are liable to be so conveyed in future? Let us review the symptoms. We judge that the syphilis was conveyed with the vaccination because syphilitic symptoms appeared. Did any other symptoms appear which belong not to syphilis, but to some other disease? Jenner* long ago remarked that variolous matter may undergo such a change, from the putrefactive process, as well as from some of the more obscure and latent processes of nature, as will render it incapable of giving the small-pox in such a manner as to secure the human constitution from future infection; although it is capable of exciting a disease which bears so strong a resemblance to it as to produce inflammation and matter in the incised skin, swelling of the axillary glands, general indisposition, and eruptions; and he observes that this spurious action is often accompanied by more violent inflammation than that which occurs when the variolous matter produces its perfect effect upon the system. Willan† also remarks that variolous matter improperly kept, or the thick matter taken from collapsed and scabbing pustules, when used for the purpose of inoculation, does not always produce the small-pox, nor prevent the future occurrence of that disease, although the persons inoculated may have had inflammation and suppuration of the arm and pains in the axilla, with fever and eruptions on the ninth or tenth day. In like manner, if the vaccine fluid employed be taken at a late period, it does not always produce the genuine cellular vesicle, but is in some cases wholly inefficient, while in other cases it suddenly excites a pustule or ulceration; in others, again, an irregular vesicle, and in others erysipelas. Similar appearances are occasionally observed when the lymph is taken at the proper time, and inoculated upon those whose systems are already under the influence of some disturbing cause.

The inoculation of decomposing lymph, or fibrin, or pus, from whatever source derived, may give rise to symptoms, both local and constitutional, similar to those which were observed by Jenner and Willan occasionally to follow small-pox inoculation and vaccination. If any of the decomposing fluid be taken up by the absorbents, inflammation and suppuration of the corresponding lymphatic glands will be produced; but if taken up by the veins, and carried directly in the course of the circulation, symptoms of blood-poisoning will ensue.

One of the first cases which I had an opportunity of witnessing in private practice was that of a gentleman, otherwise in good health, who had a small fluctuating tumour on the leg, which was opened with a lancet subsequently ascertained to have been shortly before used for the purpose of making an incision into a very foul abscess. There was here no inflamed lymphatic nor enlargement of the lymphatic glands, but the patient died in a very few days with the symptoms of contaminated blood. This case, which occurred many years ago, left a deep impression upon my memory.

Whenever any decomposing matter is taken up from the surface of a wound, from whatever cause originating, symptoms of blood-poisoning in a greater or less degree will manifest themselves.

Case 1.—A child had a slight operation performed for phimosis, and everything went on well until the fourth day, when the wound assumed an unhealthy character, and a blush of erythema appeared over the pubis. The same afternoon a similar blush, of a dark colour, gradually fading to the tint of the surrounding skin, appeared on the forehead. The patient died the next day.

Case 2.—About the same time that the preceding case occurred, a gentleman had an operation performed in the perineum. No unfavourable symptom at first showed itself. After a short interval, however, he was attacked with an erysipelatous blush over the forehead, and this was followed by secondary inflammation of one eye and death.

In cases of syphilitic ulcerations the same thing may occur. During the present year I had under my care at St. George's Hospital a child who had an hereditary syphilitic eruption on the skin. The symptoms suddenly changed, and a number of subcutaneous secondary abscesses formed in different parts of the body. Another remarkable case occurred not long ago in the Lock Hospital, in a woman aged twenty, who had been an out-patient at St. Thomas's, and had suffered from ulcerations during several months. Suddenly the parts affected began to slough, and were surrounded by a deep erysipelatous blush. This extended over the right side of the stomach and down the right thigh. The patient died in a few days with all the symptoms of blood-poisoning, and the condition of the coagula in the heart is represented by a drawing in the last number of the "Pathological Transactions." The above are extreme cases of blood-poisoning from the absorption of decomposing matter, but the same disease may show itself in a great variety of milder forms. There is at present in the Lock Hospital a patient who, after a secondary eruption on the skin, has a number of subcutaneous abscesses in different parts of the body; but her general health, though impaired, is not seriously affected. Now, in some of the cases recorded at Rivalta there were described soft tumours under the skin, erythema about the nates, gastro-enteritis, &c. Such symptoms do not certainly belong to syphilis, but they belong to a class of blood-diseases which can be artificially produced in animals by the injection of decomposing matter into the veins.

The morbid actions belonging to this class of affections may be inoculated, as well as syphilis or the vaccine disease. It is true that they cannot be artificially produced with the same certainty as those diseases, nor, when produced, will they with the same degree of certainty contaminate the system. Yet, on every ground, all precautions should be used in order to prevent either local or general infection by this means. A great lesson, then, is here forced upon our consideration, one, probably, well known practically to the great majority of English vaccinators, but still one which recent events have shown it may be necessary from time to time to repeat. Whenever vaccination is performed, the lymph used should not have been left on the vaccinifer's arm sufficiently long to undergo any material alteration. It should not be mixed with blood, even from the healthiest subject, because the blood will give it a tendency to decompose which the pure lymph naturally would not have.

In practice four very simple rules would appear to be sufficient to ensure safe vaccination.

1st. To use a clean lancet upon each occasion.

2nd. To take the lymph not later than the eighth day from the vesicle of the vaccinifer.

3rd. To take the lymph only, and not to allow blood or other secretions to be mixed with it.

4th. To obtain the lymph from a healthy subject.

Whenever, in the process of vaccination, any blood oozes from the puncture, some capillary tube is necessarily wounded. The process of repair in such minute vessels cannot, on account of their size, be accurately traced; but there is no reason to doubt that the action by which their sides are re-united is the same as in the larger vessels. Here the mode of union may be traced accurately enough, and an instructive lesson may be learned by considering what takes place when a vein is wounded by a clean instrument, and how far that process may be altered by the use of a lancet containing on its point some decomposing matter, however small in quantity.

When the sides of a vein are simply divided, the blood which is effused in its cellular coat and in the surrounding cellular tissue, coagulates, contracts, and forms a bed in which the process of re-union goes on. The divided lips of the vein are by this means brought into apposition, and grow together, while the current of the blood is continued through the channel of the

* On the Cow-pox, ed. 1800, p. 83.
† On Vaccine Inoculation, 1806, pp. 31, 32.

TIGHTLY BOUND

vessel. This process affords an excellent example of Hunter's "union by first intention" as distinguished from his "adhesive inflammation." Whenever a vein is wounded, the same "intention" is manifested, and more or less perfectly carried out; but if a portion, however small, of decomposing matter be left in the wound, and mixed with the coagulated fibrin of the blood, it may impart its action to the material which forms the bond of union between the divided edges of the vein. The union is then dissolved; the fibrin is disintegrated, and the wound opens. The edges of the divided vessel are no longer firmly united, and the process of decomposition may extend to the coagulated fibrin which held them together, or even to the interior of the vein. The product of that decomposition may then find a ready access to the circulation, and symptoms of either local irritation or of constitutional disturbance may speedily be induced. This may happen with a small vein as with a large one, and affords a sufficient explanation of the sore arms and constitutional disturbance which have not unfrequently been known to follow vaccination. Such symptoms must not for a moment be confounded with those of syphilitic inoculation, or with those which properly belong to vaccination. It is true that the vaccine lymph may decompose, or that the secretion from a syphilitic subject may undergo various chemical changes; and if these fluids be inoculated in that condition, they may then produce not only the disease to which they owe their origin, but also the symptoms of direct absorption of morbid matter into the blood. In the cases at Rivalta the matter inoculated was professedly taken from vaccine vesicles; and that it contained the true vaccine poison was shown by the immunity that was induced in the little patients to any subsequent attempts at vaccination. But the secretion was also (if we except that with which the first child was vaccinated) taken from syphilitic children, and it was moreover, before it was so taken, allowed to remain in hot weather sufficiently long to undergo incipient decomposition. We have then here the ascertained causes of three distinct and separate diseased actions. The vaccine poison produced its natural effect, and when the children were revaccinated, it was proved that they were incapable of receiving the disease again. The syphilitic disease was communicated, as shown by the long list of cases which has been given; and in addition to the symptoms which belong to these two diseases respectively, there were others, such as gastro enteritis, erythema about the nates, and soft fluctuating tumours under the skin, which must be ascribed to the direct absorption of decomposing matter into the blood.

Each of these three diseases has its own specific cause, is governed by its own laws, and is known by its own symptoms. Each appears at a different period after inoculation. The effects of the vaccine poison show themselves after the shortest interval; those of the blood-poisoning after a longer period; and the results of the syphilitic inoculation after a still longer interval.

The access of each of these diseases, when properly observed, is known by its characteristic symptoms; and these should not be confounded with the symptoms of any other complaint.

When syphilitic inoculation takes place, it will manifest itself by one of the three forms described under the head of Syphilitic Infection in the second lecture; and in children who have been vaccinated, as in other patients, we may affirm that no syphilitic disease has been communicated unless the symptoms of that disease in their primary manifestations have been present. This remark of course applies to cases which have been properly observed, and the symptoms of which have been looked for at their proper period. After vaccino syphilitic as after the natural inoculation of syphilis, the period of incubation, as far as the syphilitic disease is concerned, is from three to seven weeks; and if the patient is seen for eight or ten days only, the symptoms will not be observed, even should they present themselves. When real syphilitic infection has taken place, the primary symptoms may cause very little inconvenience; and the patients may not be brought for medical inspection. Of all the cases that happened at Rivalta, in none was application made to a medical man on account of the condition of the arm after the twofold inoculation. Supposing proper inspection to have been made, we may affirm that in no case may vaccination be accused of having been the means of introducing the syphilitic poison into a patient's system, unless the symptoms of the syphilitic disease in one of its primary forms have been produced. If any question on this subject should arise, the medical man may with the same confidence appeal to the symptoms in this as in any other disease, and may be assured that he has never been the means of causing syphilitic infection of a patient's system if the symptoms of the specific primary adhesive inflammation in one of its varieties have not been present.

It has been made the subject of lengthened comment, that in the first vaccinifer of the Rivalta cases the vaccine vesicle appears to have run its natural course, and left no unnatural appearance afterwards; and the question naturally arises, How could syphilis have been introduced into this little patient's system without any appearance of primary disease on the inoculated spot? It has been argued that if the disease had really been syphilitic, some primary manifestation of the disease must necessarily have presented itself. For a long time no satisfactory solution of this difficulty appeared. At length, on the 29th of March, Dr. Pacchiotti writes that he had discovered the real source of the syphilis in the first vaccinifer, Chiabrera, and that it now appears that the vaccine lymph contained in the capillary tubes sent from Acqui was not in fault. Dr. Pacchiotti found out that about a year and a half ago a young woman (who said that she had been infected by a child from Acqui) had had constitutional syphilis at Rivalta, and that he had ascertained that her symptoms continued some time before the vaccination at Rivalta. This woman was the mother of a child, which she suckled, and which died three months after its birth. It was reported by some to have died syphilitic, and by others to have been suffocated in its cradle. After the death of her child she required her breasts to be drawn, and Chiabrera's mother undertook the office herself, and lent Chiabrera (the first vaccinifer) to the woman for the purpose. The woman in return gave Chiabrera her own child's clothes. The woman, whose name was Libérate, after the death of her child, went to live with her sister Mary, who also was suckling an infant. Libérate, in the absence of her sister, suckled Mary's child. At the end of a certain time, not only was Mary's child infected, but Mary was herself infected through her own child. Now, as this nurse infected her own niece, it appears in the highest degree probable that she had also infected Chiabrera, whom she had nursed. All this took place two or three months before the vaccination of Chiabrera. That the woman Libérate and her sister and her sister's child were really affected with syphilis, is substantiated by a medical man at Acqui, who attended them. Subsequently Professor Sperino saw them at Rivalta with syphilitic symptoms. They are now, says Dr. Pacchiotti, at Turin as patients in the "Sifilicomio."

This may or may not be the true explanation of the way in which Chiabrera became syphilitic; but this does not affect the direct evidence with regard to the communication of the disease to the other children, and from them to their mothers and nurses. The great fact that, when proper care is not taken, syphilitic matter may be inoculated with the vaccine lymph, is farther illustrated by the following narrative of Dr. Emanuel Marone, published at the end of Dr. Pacchiotti's work:—

In November, 1856, Dr. Marone obtained some vaccine lymph from Campo Basso, the capital of the province, and vaccinated a number of children at Lupara, in Molise. The vaccine lymph was sent in glass tubes, and it was observed that it was mixed with a little blood, which affected its transparency. Dr. Marone says that he does not think it necessary to detail the symptoms of each individual case, as all the children mentioned in the following account displayed nearly the same symptoms, and that therefore such an account would involve needless repetition. The disease with which these children were affected showed itself subsequently amongst the nurses and mothers, and even amongst the servants and others who were brought in contact with them.

The names of the children who were directly affected are as follows:—Filomena Listorti, daughter of Amadio and Antonia di Vista, of the age of eight months (this child was the vaccinifer); Anna Mastro-Guiseppe, daughter of Guiseppenicola and of Anna Fiardi, aged nine months; Filomena, daughter of Lisio di Angiolomichele and Maria Martino, aged nine months: Francesco Salvatore, son of Vincenzo and Antonia di Paola, aged eight months; Vittoria Gargano, daughter of Francesco and Concetta Giovanelli, aged ten months; Guiseppe Riccardi, son of Francesco and Luisa Petrilli, aged ten months; Francesco Fiore, son of Nicodemo and Anna Comatteo, aged seven months; Francesco Marsilio, son of Michele and Angiola Cienzo, aged nine months; Maria Giacomodonato, daughter of Felice and Michele Cienzo, aged nine months; Maria di Cienzo, daughter of Guiseppe and Antonia di Paola, aged eight months; Giovanni Martino, son of Domenico and Incoronata di Vito, aged eight months; Niccola Lagatta, daughter of Pasquale and Emilia Fiore, aged seven months; Luigi Fiorentino, son of Luigi and Vicenza di Santo, aged eight months; Antonia Pellile, son of Federico and Maria di Leonardo, aged eight months;

Giovanni Pelillo, son of Beniamino and Angiola Tacopodonato, aged six months; Angiola Dado, daughter of Pasquale and Vittoria Pelillo, aged six months; Geunaro Antonarelli, son of Giovanni and Concetta Lanese, aged eight months; Maria Fiardi, daughter of Luigi and Teresa Abbieri, aged eight months; Felice Continelli, son of Domenico and Luisa Tacopodonato, aged six months; Constantino Leonardo, son of Giovanni and Beatrice Santo, aged six months; Concetta Pasquarelli, daughter of Niccola and Antonia Giovannelli, aged five months; Teresa Giacomodonato, daughter of Francesco and Giovannia Vannelli, aged five months.

The number of these children, as may be seen, amounts to twenty-three. They came of parents who never had at any time previously shown any symptoms of syphilis; moreover, their general health was good. The children likewise had never shown any symptom of syphilis, either congenital or acquired, previous to the vaccinations in question. The number of vaccinated children was not limited to these: there were some others, of whose cases notes were not preserved.

In some of the children vaccinated the vesicles died slowly away; but afterwards ulcers appeared on the same spots surrounded by hard edges, and accompanied by multiple enlargement and induration of the axillary glands. These ulcerations lasted from a month to a month and a half without any suppuration of the axillary glands. In other cases the vaccine pustules became covered with crusts, which remained an unusual length of time. These never became firmly cicatrized, and sooner or later reopened, assumed an ulcerated appearance, and were accompanied by the usual axillary complications.

Finally, in some other cases, the first vaccinations not having succeeded, they were repeated, and the pustules which resulted from these subsequent inoculations ran a lengthened and irregular course. In all the children above-named, sooner or later, but towards the middle of January, some form of constitutional syphilis developed itself. The symptoms consisted chiefly of eruptions of roseola, crops of papulæ, impetiginoid, and in a few instances pemphigoid, eruptions. At a later period mucous tubercles appeared on the angles of the lips, on the mucous membrane of the mouth, around the anus, and on the vulva; the post-cervical and inguinal glands were affected; and the children were emaciated generally in proportion to the extent and severity of the syphilitic symptoms.

The breasts of the mothers who suckled these children became affected with ulcers varying in appearance, but always indurated. Some of these ulcers had the appearance of raised and ulcerated mucous tubercles; others were superficial and but slightly indurated; others, again, assumed the appearance of fissures: these were mostly on the nipple or on the areola immediately surrounding it.

Some of these mothers presented a muco-purulent discharge from the vagina, and a similar discharge had previously been observed from some of the infected children. Few opportunities were afforded of witnessing the source of the discharge in the women, but in two instances mucous tubercles were seen on the neck of the uterus.

Subsequently, and after the lapse of from five to eight weeks, many of the children had, in addition to the symptoms already mentioned, fresh eruptions of roseola, impetigo, psoriasis of the palms of the hands and soles of the feet, and ulcerations between the toes. Some of the women had at this time mucous tubercles about the mouth and genital organs. These women were also affected with chronic enlargement of the post-cervical and axillary glands, which became the size of hazel-nuts, but never passed into suppuration.

After the appearance of the above symptoms, the husbands of some of these unfortunate women became affected with the same disease. They first presented mucous tubercles with a certain amount of induration, which subsequently became ulcerated. These were observed principally upon the lips and angles of the mouth. In some cases ulcerated fissures with hardened base appeared upon the tongue. Between the fourth and eighth months from the first appearance of the disease the husbands had eruptions of the same nature as those which had previously affected their wives. At this period several of them had also characteristic mucous tubercles around the anus, on the scrotum, and on the prepuce.

The disease was observed to spread to other members of the different families, so that Dr. Marone remarks that he had children of both sexes who had not attained the age of puberty with hardened ulcers of the lips and tongue. In cases where these poor people were crowded together in confined and neglected dwellings, whole families became affected with the disease. The same train of symptoms which have been already described as affecting the nurses and husbands, showed themselves in the other members of the respective families.

The treatment adopted was, mercurial frictions to the skin, and mercurial baths of corrosive sublimate. Corrosive sublimate was also in many cases given internally. Under this treatment the disease was greatly modified, and in some instances appeared to have been completely cured. But in the majority of cases the syphilitic symptoms, which at first yielded to the remedies employed, subsequently recurred, and in some instances the disease lasted in this way for upwards of two years and a half. Some of the children died, and apprehensions were entertained that a similar result might follow in not a few cases in the adults.

Many of the women who had been infected by their children, when they subsequently became pregnant, miscarried; others were prematurely confined with children, who subsequently became syphilitic; and in other cases, again, the children when born were excoriated, and already in a state of incipient putrefaction.

Some of these unfortunate patients who were infected by their own children communicated the disease to the children of other people, through the medium of the breast. The following are the names of eleven nurses who in this way, without the slightest suspicion, communicated the disease to the children whom they nursed, and who had not been vaccinated:—

Maria Felice Carusella infected the child Anna Concetta Salvadore; Angiola Benci infected Guiseppina Valente; Emanuela Lombardi infected Teresa Vennitelli; la Concetta Tudino infected Jacopo Ciccarelli; la Maria Simeone infected Niccola Pelillo; la Carmina Bagnoli infected Pasqualina di Oto; la Berenicie Ciccarelli infected la Maria Abbiero; and la Stella Salvatore infected la Diletta D'Onofrio; l'Antonia Altobelli infected Antonina Zarlenga; la Concetta Dabarno infected Beniamino Giacomodonato; la Vicenza Principe infected la Teresa Giammaria.

The symptoms which appeared in these children were, mucous tubercles and ulcers of an indurated character, first on the lips, and then around the anus. These were followed by well-marked syphilitic roseola and syphilitic papular eruptions.

The two following observations are recorded particularly by Dr. Marone.

A child (L. S.), who had been successfully vaccinated in another part of the country, required a nurse. A woman was selected who at the time appeared healthy, but who in reality had been infected by her own child in the manner above described. Her child had received the disease by vaccino-syphilitic inoculation, and subsequently died. After the nurse had been with L. S. two months, there appeared on this child's mouth mucous tubercles and indurated ulcers, followed by an eruption of roseola over the whole body. The nurse Dr. Marone ascertained, by personal inspection, to be syphilitic.

Guiseppina Simeone was infected from her own child as in the last-recorded case; and feeling on one occasion that her breasts were inconveniently distended, she had them drawn by her own sister, of the age of ten years. This girl (Teresa Valentini) became infected with syphilis; she had mucous tubercles and indurated ulcers on the lips and tongue, and these were followed by the ordinary syphilitic eruptions. The disease lasted in this instance for upwards of two years. In some of the patients seen by Dr. Marone the syphilitic symptoms continued in children, nurses, and mothers until April, 1859.

Previous to the outbreak of this terrible malady Dr. Marone states that he had had no experience of syphilis among these villagers. "It is my duty in the cause of truth," he further adds, "to state fully that these inhabitants of Lupara were in nowise blind to the connexion between cause and effect on the occasion of this painful occurrence, so that, in fact, I was pointed out as a guilty party in the catastrophe which had occurred; and this is the reason why I was silent at the time, not only on my own account, but also for fear of discrediting one of the most important discoveries of our science. Vaccination was declared to be the foundation of all this misery. Now that I have seen that other surgeons have met with a like series of facts, whatever may happen to myself, I have disregarded personal considerations, and am no longer able to refrain from publishing the above mentioned details, conceiving it to be a duty that I owe to science."

Dr. Marone draws the following brief conclusions from his most interesting and affecting narrative:—

That the syphilitic disease was really transmitted in the above-recorded cases by means of vaccination.

That the children vaccinated suffered first, and became the means of transmitting the disease to others.

That the lymph used for the purpose of vaccination was impure, being mixed with blood, and that the result shows how necessary it is to abstain from using lymph of that description.

The point that Dr. Marone here insists upon is also dwelt upon by Dr. Pacchiotti. It is important, he says, to remember that it is stated by the mother of Chiabrera (the first vaccinifer in the Rivalta series) that during the time that vaccination was being performed, the blood was oozing from her child's arm, and that she complained of the circumstance at the time. Some of the mothers, whose children were then vaccinated, affirm that the lancet used was stained with blood. It is true that some of the children which were last vaccinated remained free from contagion, and some of those who were infected were amongst those who were vaccinated the first. This circumstance Dr. Pacchiotti considers may be explained by considering that the lymph drawn from different vesicles was used for the purpose of vaccinating different children, and that some of these vesicles furnished blood, and some did not.

In the cases recorded by M. Lecoq, of Cherbourg, the same circumstance of blood having been taken with the vaccine lymph was remarked. An abstract of these two cases is here given, as they illustrate well the subject of twofold inoculation, and also because they have been misquoted on more than one occasion.

On the 4th of May, P., aged twenty-five, was revaccinated in accordance with the regimental regulations. The vaccine virus was taken from the arm of another soldier, who three months previously had had an infecting chancre. Abortive pustules only were produced. At the expiration of eight days there was a slight irritation only where the punctures were made. After some additional days,* a slight ulceration appeared, which increased and assumed a violet colour. Its base became indurated, and was accompanied by indolent enlargement of the axillary glands in the armpit of the same side. Constitutional syphilitic symptoms followed.

Another soldier, vaccinated shortly after from the same source, had a series of symptoms of exactly the same nature, and these, as in the previous case, resulted in confirmed syphilis.

These two patients had never had any other syphilitic disease. They were the last of a number who were vaccinated, and the gentleman who performed the operation recollected afterwards that at the time he vaccinated these patients he had exhausted his supply of vaccine lymph, and had taken up a little of the blood of the point upon his lancet.

ON THE MODES OF CALCULATING THE DEATH-RATE OF A POPULATION.†

BY WM. FARR, M.D., F.R.S.

GENTLEMEN,—If you walked through the undrained lands near the borders of the Thames—or the Campagna of Italy, the delta of the Mississippi—through our courts frequented by fever, through Cairo suffering from plague, through India prostrate from famine, you would have no difficulty in forming clear ideas of the different kinds of unhealthiness from which the population were suffering. But of the various degrees of insalubrity, and of their precise effects on the life and health of the people, only general notions could be formed; such as we find expressed in the writings of Hippocrates and Galen, or of Sydenham and Morton. Pringle and Heberden, you are aware, introduced the modern methods into the field of medicine, and turned to account the discoveries of Halley, Price, and others in the science of *Life*.

I propose to bring briefly under your notice some of the methods for determining the rate of mortality, and to point out their various degrees of accuracy. Of the rates of sickness I shall not have time to treat.

Conceive, if you please, 100 soldiers mustered in a square of 10 ranks, each of 10 men; their numbers being maintained constantly by recruits taking the place of the departing, either by death or otherwise. Then if 5 die in the year the deaths will be 5 per cent. So, if out of another equal company 2 die in the same time, the deaths will be 2 per cent. Now, are the rates of mortality in the ratio of 5 and 2 per cent. in these cases? No, if the time of observation is not equal; yes, if it is. The rate of mortality is a ratio not simply between two, but between three elements—(1) living men, (2) time, and (3) deaths. The measuring units of these elements are arbitrary, but they are fixed for convenience in practice. You may say that the mortality of these men is 2 per cent., or you may say it is 1 in 50—that is, in all cases, *in one year*. For the unit of time is one year; the unit of the living in use is 1, or 100, or 1000, if we measure the variation of the deaths; while the unit of the dying is 1 in the instance where the *living* out of which the death occurs vary—say from 1 in 20 to 1 in 100—under different circumstances.

To impress upon you the importance attaching to the element of time, I beg to remind you that by fixing the numbers living and dying—say at 10,000 living and at 1 dying—you may express the varying rates of mortality by the intervals of *time between each death*: thus *one* dying *daily* would imply that the mortality was *twice* or *thrice* as great as in similar communities, of which *one* died every *two days*, or of which *one* died every *four days*. The expression, "the people are dying fast," involves this idea; but it is otherwise not used, except in a most important form to which I shall shortly advert.

The *living* and the *time* expressed in *years* multiplied into each other produce the *years of life*, with which the deaths are to be compared. A year of life is the lifetime unit. It is represented by *one* person living through *one* year. Any number of persons living in succession through a year yield also one year of life. There are 31,556,925 seconds in a year, and 31,556,925 persons living one second enjoy in that second a year of lifetime.

To find the years of lifetime there are various methods, some direct and others indirect. It is practically as impossible to enumerate the numbers living in a district in every second of time as it is to determine the diameter of the earth by direct admeasurement. We therefore resort, as in all the sciences, to methods of indirect determination, furnishing either exact or approximate results, according to the nature of the case.

The years of lifetime are determined by enumerating the population at known intervals of time, and by calculating the numbers living through the intervals of time.

The following four cases may be distinguished:—

1. The population is known or is assumed to be stationary. Thus a population of 1122 living through half a year yields 562 years of life; living through two years yields 2244 years of life. Let the population be p, and the years of life y, then in x years; $y=xp$ in all cases. Here x may be a whole number or a fraction.

2. The population increases by equal numbers in equal times; that is, it increases in arithmetical progression. If the population is 2800 at the beginning of a year, and 3200 at the end of the second year, the mean population will be the sum of these numbers divided by 2—that is 3000, which will also be the population in the middle of the period. To find the years of life, take the numbers living in the middle of the period, or the mean of the numbers living at the beginning and end of the period, to represent the mean population of the period, and multiply by the years. Thus if p_0 is the population at the beginning of the period, and p_x the population at the end of x years: $r=\frac{p_x-p_0}{x}$; and $p_0+\frac{x}{2}r=\frac{p_0+p_x}{2}$=mean population. The years of life will be $y_x=xp_0+\frac{x^2}{2}r=\frac{x}{2}(p_0+p_x)$.

3. If the population fluctuates much, and frequent enumerations are made, the mean of each successive couple of enumerations multiplied by the interval of time, expressed in years or fractions of a year, will give the years of life. Thus the monthly musters are used in the army; and in some institutions quarterly enumerations suffice. Where the enumerations are taken monthly, quarterly, or at any equal intervals of time, you obtain the population by adding half the sum of the extremes to the sum of the intermediate terms, and dividing by one less than the number of enumerations. Thus, with quarterly enumerations, representing the successive numbers by p_x, we have, $\frac{\frac{1}{2}(p_0+p_4)+p_1+p_2+p_3}{4}$=the mean population.

4. The population of a country usually increases in equal proportions in equal times, or, as Malthus expressed it, in geometrical progression. In this case the population increased, so that if the lines representing it are drawn at short equal intervals, they all touch a regular curve. Thus, let the popu-

* Viennois sur le Chancre Primitif, p. 76.

† Read before a meeting of the Metropolitan Association of Medical Officers of Health.

lation be imagined standing on a straight line at the beginning of the year, and then passing at a uniform rate through the year; as it is increasing incessantly, its line of march will be constantly extending; then, if the ground that it passes over in the first year be represented by the area marked 1 in the diagram (1), the ground that it passes over, at the same rate of progress, in the second year will be represented by the area marked 2; and so, as the line of march extends, the covered area will increase every year. The vertical lines represent the population; the base line the time in years; the area the years of life. The mean of the two extremes exceeds the middle term is less than, the mean population; which may, however, be found by taking the mean of the calculated population at short intervals. Put the population $y = p_o r^x$ at any given moment; then in the next moment it will be $y + dy$, where dy represents the small increase of y in the infinitely short time dx; and the mean of these two quantities $\frac{2y + dy}{2} = y + \frac{dy}{2}$, multiplied by the interval of time $(dx) = ydx + dydx$, or passing to the shortest possible time $ydx = p_o r^x dx$. Such is the amount of lifetime generated in an instant, and represented by the extension of area, of which it is the differential. The sum of all the years of lifetime enjoyed in the x years is given by the definite integral of the above expression. $y_x = \frac{kp_o}{\lambda r}(r^x - 1)$ = the years of life; r being the annual rate of increase, λr its logarithm, k the modulus of the common logarithm, p_o the population at the beginning of the period, and x the time in years.

Example.—The male population of England and Wales of the age 15—25 was 1,511,602 in 1841, and 1,671,634 in 1851: the annual rate of increase was a little more than 1 per cent.; logarithm of r=0·0043704. At this rate of increase, the population at the beginning of the year 1838 was 1,459,288; at the end of the year 1854 it was 1,731,522; and the years of life in the seventeen years were 27,056,350. As the deaths in those years of males of those ages were 222,420, we have this proportion, 27,056,350 : 222,420 :: 1 : m = ·00822. This is less than 1 per cent., and rather more than 8 per 1000. The true mean population was 1,591,550; the mean of the populations at the extremes of the time was 1,595,405; the population in the middle of the period, 1,589,606. The mean of the population of 1841 and 1851 was 1,591,618; so the mean of the population in those years, which are three and a half years from the extremes, was very near the true mean. The deaths of 1838—1854 were taken as the basis of the new English Life Table (3), because the population was enumerated in the intermediate years 1841 and 1851. Such are the means for determining the years of life.

[Then were pointed out the necessity of allowing for fluctuations in the numbers of the population in particular streets, squares, districts, and towns; of taking the time into account, so as to give the mortality in all cases per annum, and not as it was given in the Crimea, per week; also, the precautions to be taken so as to exclude the deaths not belonging to the population, as well as to include those who are often sent out by invaliding and other means. The rates of mortality were shown to vary according to sex, age, locality, and other circumstances. Thus the rate of mortality of boys under five years of age in the healthy districts of England was 4·4 per cent.; in London some years ago, 9·3 per cent.; in Liverpool, some years ago, 14·5 per cent.; of men of the age 55–65, it was 2·3 per cent. in the healthy districts, 4·8 in London, 5·3 in Liverpool; it was 3·0 per cent. in the kingdom generally from 1838 to 1854. Whereas the mortality of men at the ages 25–35 in England is 1 per cent., it was 8·5 per cent. amongst European troops in India from 1800 to 1829, and 5·8 per cent. in the years 1830–56.]

Long life is an element of a people's health, for men live in some districts 25 years; in others, 50 years; and in the latter enjoy the best health, in the opinion of the world as well as in the eyes of science. The average number of years that men live after any age is sometimes called the expectation of life; I have called it the mean after-lifetime. This means really, the average number of years that men will live; and I want to prove to you that it can be deduced from the rates of mortality at the several ages. The rate of mortality, you recollect, involves the element of time—of years of life—which can be eliminated by reversing the methods already described.

Let us go back to the 100 soldiers. It was assumed that the force was kept up by recruits taking the places of those leaving. Assume now that there are no recruits, but that 103 men, aged 20, under observation are reduced by 6 deaths to 97 at the end of the year; then to obtain the *years of life* you find the mean of 103 and 97 to be 100, and the mortality is 6 per cent. Thus you ascertain the *mortality* from the deaths and the *years of life*.

But you can also deduce the *years of life* from the mortality. Thus, divide the 6 deaths by 2, and you obtain 3. Add 3 to 100, and you have 103, the population at the beginning of the year; while 100 − 3 = 97, the population at the end of a year; and the mean of the numbers at the beginning and at the end of a year = 100 = the years of life. So if the mortality was higher in the second year, out of 97 *six* more would die, leaving 91 alive, giving $\frac{97+91}{2}$ = 94 more years of life. Thus, from the rate of mortality at each year of age up to 100, the numbers living through each year—that is, the years of life—can be deduced. But all these years of life belong to the 103 men with whom we started; so divide the sum of the years of life thus deduced, after any age, by the numbers living at that age, and you obtain the mean duration of life.

In the above case, $\frac{97}{103}$ = the probability of living a year.

You can calculate the rate of mortality of the people in your district by dividing the deaths in a given number of years—at the age of 25 and under 35—by the years of life, which you deduce, as already directed, from the enumerated population.

The rate of mortality from 25–35 is assumed to be that at the precise age 30.

By the same methods the rate of mortality at the ages 1, 2, 3, 4, 7, 12, 20, 40, 50, 60, 70, 80, and 90, can be deduced—that is, from the deaths and the years of life. The *rates of mortality increase with age with considerable regularity*, so the rates at all the intermediate ages can be interpolated. Then from the rates of mortality at each year of age you can pass to the probability of living a year, from which is deduced the series representing the survivors, out of a given number born, at the end of each year of age from 0 to 100 years—the natural terminus of man's existence.

This is a Life Table, and from it the mean after-lifetime at each age is deduced.

Examples.—The mean after-lifetime in England is 41 years: in the healthy districts, 49 years; in the Liverpool district, 25 years.

To return to our three elements—(1) the living, (2) the dying, and (3) the time. When you compare the durations of life, and say it is 25 years in one place, 50 in another, you refer to *time* alone, and omit all mention of the living and dying. These are two units, in fact, which disappear; for you mean that *one* man lives 25 years on an average, and *one* dies at the end of 25 years. Divide the one death in the first case by the years of life (25), and you get the rate of mortality—·04, or 4 per cent. Divide the one death by the years of life (50) in the other, and you get ·02, or 2 per cent., as the rate of mortality.

In a stationary population normally constituted, the *living* divided by the *deaths* give you the average *number of years* they live—their average years of life. The population is equal to the number of years of life the children born will live, multiplied into the annual births, which, by hypothesis, equal the annual deaths.

In an increasing population the quotient so obtained exceeds the expectation of life. In England it is 45, while the expectation of life is 41 years.

The mean age at death in England is 29 years; the mean after lifetime, 41 years.

The mean age at death in London is 29 years; the true duration of life, 37 years.

You must not confound either the *mean age at death*, or the *living to one death*, with the number which expressed the true duration of human life, or the number of years that the children in the district will live.

[In reply to inquiries, Dr. Farr stated that the Registrar-General, he knew, would very gladly do all he could to promote their most useful labours, to which the whole community were deeply indebted.]

ON INJECTIONS IN THE TREATMENT OF UTERINE DISEASES.

BY ROBERT ELLIS, ESQ.,

OBSTETRIC SURGEON TO THE CHELSEA AND BELGRAVE DISPENSARY.

I HAVE a few practical remarks to make on the subject of this paper, which may be interesting to the readers of THE LANCET. They have been suggested to me in the course of

some observation of methods of treatment adopted by others and by myself in dealing with the peculiar classes of ailments assembled under the generic name of uterine inflammation and ulceration.

First, as regards the *uses* of injections. These may be learned by their failures. They are insufficient for the cure of ulceration, if it has existed for some time, and I have no satisfactory evidence that they can cure this condition effectually under any circumstances. They are not able to cure leucorrhœa in the great majority of cases. I have seen it return again and again after the injections have been discontinued. They are useless for the cure of inflammatory induration and hypertrophy of the cervix, and they are equally ineffectual in the sole treatment of the spongy, indolent, patulous, and ulcerated cervix occasionally met with in obstetric practice. I can furnish abundant proof of the correctness of these statements, and it is much to be desired that they were able to win the assent of all who are engaged in this department of our art—for our own credit and for the welfare of the sufferers.

They are of great use notwithstanding; but it is only in their secondary position as adjuvants to a higher class of remedies. For the relief of pain, for the removal of acrid discharges, for the deodorization of offensive, and for the suppression of exhausting fluxes, injections are of value. They are of use for giving tone to a relaxed and weakened organ, and as astringents for the support of the womb having a tendency to prolapse. Conjoined with judicious and appropriate cauterization, they are of the greatest use in hastening the cure of the inflamed and ulcerated womb; and it is of common observation, that patients who are careful in the use of injections, (as in private practice,) get well very much quicker, and with less pain, than those who (as at public institutions) neglect this means. When the cure is complete, injections are still of much use, but it is most difficult to convince the patient on this point. In married life it ought to be easy to induce the patient to persist in this most healthful duty; yet the reverse is the fact.

The *substances* adapted for injections in commonest use are of the stimulant and astringent kind. Of these, notwithstanding the opinions and practice of others, I consider the sulphate of zinc the most unjustifiable. I think I have seen it the cause of much irritation and mischief, and it is difficult to believe that the constant use of so poisonous a substance over so large a surface of mucous membrane can be other than injurious. The nitrate of silver is another substance most unsuited for injection, yet very frequently ordered for use. The mucus of the vaginal canal instantly decomposes it if used in a weak injection, and if in a stronger form, the excoriation of the external parts, together with the mischief inflicted on the linen, hands, and utensils of the patient, preclude its repeated employment. I have made use of a variety of substances for this purpose, but as simplicity and economy are chiefly of consequence in a daily matter of this sort, the result arrived at is, that a solution of alum, either alone or in decoction of oak-bark, is, after all, the best and most effective injection we can prescribe. A mixture of equal parts of tannin and alum forms a more elegant, but also more costly substance as an astringent. For the anodyne injections, solutions of belladonna and of opium are the only serviceable remedies, and to these may be added the liquor plumbi and hydrocyanic acid with occasional good effect. For emollients, milk-and-water, linseed-tea, barley-water, and thin starch or gruel, are very valuable. The injection of gases and vapours is a very uncomfortable proceeding, and is not always free from a certain amount of risk, but considerable relief may sometimes be thus obtained when other means are useless. Of those most valuable are the carbonic acid gas and the vapour of chloroform.

Lastly, of the *instruments* for injection. Gooch's bent-pipe instrument is a cumbrous and dangerous apparatus, very apt to get filthy, and to inflict injury on the cervix. The glass "female syringe" is a most absurd contrivance for cleansing a canal so capacious as that for which it is intended. It is also often broken, and sometimes within the canal itself. The ordinary pump, with elastic tube, has the disadvantage of requiring the assistance of a second person for its use. For the use of the poorer classes a simple and excellent instrument was contrived by me some years ago; it consists of a piece of gutta percha tube, five feet long, fitted at its upper end with an inch or two of elastic tubing: this could be slipped over the mouth of a common kettle, and the other end being placed in its proper position, the inversion of the kettle produced a constant stream of water of sufficient force to well wash out the canal. The same object may be also accomplished (and this method is largely used in France) by the use of a long syphon, the upper end being immersed in a reservoir of water, and the lower retained in the canal by the patient. The French have an extraordinary variety of instruments for this purpose, amongst the most useful of which is one on the principle of the moderator lamp. Without exception, however, the most commodious and useful of all instruments for uterine injections is the elegant arrangement known as Dr. Kennedy's, and now becoming much used in this country. It may be employed either for gases or for fluids; as a douche or as an enema. An ingenious contrivance, known as the barrel syringe, made of caoutchouc, is also useful for this purpose; but the action of its valves is less to be relied upon than in the former instrument. For general use the douche just named is the best of all the varied forms of instrument for vaginal injections, and it will probably ultimately replace every other kind. Its valves require occasionally a little looking after and cleansing, but this is simple enough, as they merely consist of two metallic peas.

This article may be truly said to be drawn in "first lines," but experience has long satisfied me of the great importance of these homely remarks. If it be admitted that injections have a remedial value, it is certainly the duty of the medical man to take care—1st, that they be employed for such uses as they will most surely subserve; 2nd, that only those substances be used which are adapted for those ends; and lastly, that the instrument for their employment is a simple and efficient arrangement. Instances of failure on all these points are so common as to justify this note on a very commonplace subject.

Sloane-street, May, 1862.

CASES IN SURGICAL PRACTICE.

By JOHN WIBLIN, L.R.C.P. EDIN.,
PRESIDENT OF THE SOUTH HANTS MEDICAL AND SURGICAL SOCIETY.

THE following cases have lately occurred in my practice:—

STONE IN THE BLADDER; LITHOTOMY.

George C——, aged fifty-seven, a native of Lyndhurst, had suffered for some years past from all the most prominent and painful symptoms of stone in the bladder. In the course of the last year he had been subject to every variety of treatment for the cure, as was supposed, of disease of the kidney, enlargement of the prostate gland, and stricture of the urethra—maladies which existed in the imagination only of the gentleman whom he consulted. The early history of the patient's condition of health afforded abundant evidence of his having been the subject of scrofulous inflammation of the joints, and necrosis of the femur and humerus. Towards the latter end of 1861 my opinion was requested on the case. The bladder was examined, and found to contain a stone of moderate dimensions. On the 7th of January of the present year he was admitted into the wards of my private establishment, and after he had undergone some preliminary treatment, a day was named for the performance of the operation.

On the 18th of January the patient was fully submitted to the influence of chloroform by Dr. Henry Falk, a gentleman thoroughly conversant with all requirements calculated to ensure its successful administration, and to whom I am under many obligations for similar assistance on various occasions. When the patient was placed on the operating table, a full-sized grooved staff, No. 14, formerly belonging to my preceptor, Mr. Liston, but now in the possession of Mr. T. Carr Jackson, was with the greatest facility introduced into the bladder. After the ordinary external incision was made, it was found impossible to abduct the thigh from the pelvis, in consequence of a pretty firm, although false, anchylosis of the hip-joint, the result of old-standing disease. There existed also partial anchylosis of the knee-joint, so that the left leg was of necessity held firmly bent in a position almost perpendicular to the body. The result was that the perineum, naturally narrow, was rendered much more contracted, and the space in which the necessary manipulations had to be executed was limited in the extreme. The inconvenience caused thereby was apparent to everyone as soon as the first incisions were made; for there was but little room for the operator's fingers, and his lateralizing movements were cramped and considerably impeded. After some little delay, however, the bladder was reached, the incision of the prostate gland being only sufficient to admit the point of the forefinger. On the introduction of the forceps, the stone was at once felt at the left side of the apex of the bladder, and was readily grasped; but on making the attempt to withdraw it from the bladder, it unfortunately slipped from the jaws of

the instrument, and on the next effort being made it could not be felt or detected in its altered position. The bladder was now searched most carefully by means of every kind of forceps, and as it was thought that the prostate was enlarged, it was supposed that the stone lay imbedded behind this gland. The curved forceps was introduced again and again, but without avail. At this juncture, a sound with a short abrupt beak was introduced into the bladder, with the concavity of the curve uppermost, and as it was passed in this manner under the pubes, the stone was ascertained to be lying in the bladder immediately behind and above this part. The position of the stone being now made known, Mr. H. Smith, of King's College Hospital, who had done me the favour to take charge of the staff, made pressure on the lower part of the abdomen, when the stone was dislodged from its position, and fell as it were into the jaws of the forceps. Here, again, another accident occurred by the breaking of the stone into two pieces, necessitating a second introduction of the forceps before the whole could be removed. The proceedings of the operation were necessarily prolonged in consequence of the existing complications; but most fortunately the patient did not sustain the loss of more than one tablespoonful of blood, and as it was ascertained that the stone was not larger than a chesnut, the incision of the prostate was very limited, so that the dangers, which might have been of the most formidable character in such an operation, were reduced to the least degree consonant with the execution of such a complicated and difficult procedure.

The operation concluded, the man was removed to bed; an anodyne draught was administered, and, by the further means of a suppository of one grain and a half of opium, introduced into the rectum, he passed a tolerably good night.

Jan. 19th.—Free from pain of every description. Complains of great thirst. Ordered to drink copiously of barley-water and beef-tea every two or three hours; to repeat the anodyne draught and suppository.

20th.—Passed a good night; pulse 75. Urine voided by the urethra in small quantities several times during the day. Ordered a mutton chop for dinner; to repeat the night draught without the suppository.

21st and 22nd.—Passed excellent nights. Takes plentifully of everything that is given to him, and states that he is more comfortable than he has been for five years.

24th.—Urine smells very ammoniacal; contains phosphates in abundance, with vesical epithelial scales, and mucus-corpuscles. To take fifteen minims of the perchloride of iron every three hours.

29th.—The general health and strength greatly improved.

Feb. 10th.—Passed a tolerably large quantity of urine per urethram. The wound in the perineum, to all appearance, is progressing favourably.

10th to 29th.—It became evident that the wound in the perineum had lost its healthy and granulating appearance, and that nearly the whole of the urine passed through this channel. All possible means were adopted to invigorate the man's general condition of health: he was fed upon every variety of flesh and heat forming material; he was ordered full doses of ferruginous preparations, which were strongly indicated by his pallid and anæmic countenance; his bladder was at times injected with a solution of dilute nitric acid; he was kept in bed for a week at a time, with a catheter retained in the bladder: but neither time nor treatment had accomplished much towards restoring the natural condition of parts up to a period of ten weeks from the date of the operation.

Under such circumstances it was deemed advisable to give the man the benefit of a change of air; he was accordingly sent to his own home in the New Forest, where his health and strength are rapidly improving; and after one month's residence in the country, he himself reports that "the urine is beginning to go right," or through the natural passage.

AMPUTATION AT THE SHOULDER JOINT.

In this case the patient was a man on whom I operated twenty years since. The man attended a late meeting of our Society. The members were much struck with the dexterity the man evinced in dressing and undressing, and in tying his neckerchief in a double bow. He said he found very little inconvenience from the absence of an arm, illustrating the adage that "use is second nature."

CASE OF REMOVAL OF A SUBCUTANEOUS BURSA MUCOSA OF THE KNEE-JOINT.

The patient was a sailor, who, in the exercise of his calling, had been for five years past much inconvenienced by repeated attacks of inflammation of the bursal appendage in question. With the view of effecting a radical cure of the disease, I advised its removal. On cutting into the cyst or bursa after the operation, its walls were found to be thickened to an extent but seldom observed; the contents of the swelling consisted of dark grumous fluid and cheese-like matter, and fibrous bands of the diameter of a crowquill extended from one side of its cavity to the other. I considered that the ordinary mode of treatment in such cases, by counter-irritation, seton, &c., would not have been productive of the slightest benefit to this patient.

Southampton, May, 1862.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

WESTMINSTER HOSPITAL.

EMPYEMA AND PNEUMOTHORAX AFTER ACUTE PLEURISY; PARACENTESIS TWICE; COMPLETE RECOVERY UNDER THE USE OF DRAINAGE-TUBES.

(Under the care of Dr. FINCHAM.)

THE remarkably good effects of the use of a drainage-tube, passing into the chest by one opening, and out by another, in a depending position, are well exemplified in the following case. The value of this mode of treating empyema cannot, indeed, be over-estimated, and, providing that other circumstances are favourable, it holds out a more positive hope of cure than any other plan that is recommended. Dr. Goodfellow had two examples under his care at the Middlesex Hospital, male patients, aged seventeen and twenty-four, in whom this plan was entirely successful. They formed the subject of a paper read before the Medical and Chirurgical Society, which was published in the 42nd volume of their "Transactions;" (see, also, THE LANCET, vol. ii. 1859, p. 11.) We make the following apposite quotation from it:—

"In cases of empyema, from whatever cause induced, where there is good ground for concluding that the lung is inexpansible, I think few will be prepared to deny the advantage of making two openings in the operation of paracentesis thoracis, and applying the plan of 'drainage.' The only probable exception to this is, where empyema occurs in a young child in whom the restorative powers are strong, and the chest-wall is so elastic that it readily falls in and adapts itself to the diminished quantity of fluid within the chest."

In our present series of cases will be found illustrations of several of the varieties of empyema, possessing more or less interest.

F. O——, aged seventeen, seaman, was attacked with acute pleurisy in August, 1860, at Cork, where he was bled, blistered, and otherwise treated for some weeks, when he came to London and was admitted into the Westminster Hospital under Dr. Fincham. At this time he was somewhat emaciated; face flushed; skin warm and perspiring; appetite fair; urine high-coloured, but normal; pulse 140; respirations 40. He complained of shortness of breath, cough, and some palpitation of the heart. He expectorated a little colourless mucus. He lay habitually on the right side, with his shoulders slightly raised, which caused much soreness of the right hip, greatly interfering with his rest and sleep. The physical signs were as follows:—Marked resonance of the right side anteriorly as low as the seventh rib; the same resonance extended backwards to a line corresponding with the anterior edge of the axillary region. A

loud metallic ring, accompanying inspiration, voice, and cough, replaced the vesicular breathing over the whole resonant space. Over the left side of the chest the resonance was natural and the breathing coarse. The heart's action could be seen and felt over a larger extent than natural, with its apex beating in the sixth intercostal space, about an inch to the left of the nipple. On sitting up, examined from behind, distinct enlargement of the right side was apparent both posteriorly and laterally, with diminished mobility of the ribs and slight bulging of the intercostal spaces; it was an inch and a quarter larger than the left side. On percussion, the infra-axillary and infra-scapular regions were completely dull; whilst the scapular and axillary, especially the former, were far more resonant than natural. Vocal fremitus was absent from the dull portion, and the breathing silent; whilst above, especially at the angle of the scapula, there was the same metallic ring as in front. There was, moreover, the most distinct splashing sound on succussion, and the situation of resonance and dulness varied according to the posture of the patient. The abdomen was considerably distended, and dull on percussion on the right side as low as the umbilicus. Air and fluid were thus shown to be clearly present in the cavity of the right pleura, the only obscurity about it being the source of the air. It did not arise from bronchial ulceration, as no pus was spat up; nor from decomposition of the pus, as shown by the tapping subsequently. Dr. Fincham believed it was the result of rupture of an air-cell, possibly from coughing; and that the air escaped both into the chest and also into the cellular tissue generally; indeed, a few days after admission, crepitation was felt under the skin of the belly near the umbilicus.

The patient went on without improvement for three weeks, when dyspnœa became urgent. Mr. Hillman, therefore, performed paracentesis between the sixth and seventh ribs, and evacuated seven pints and a half of thin pus, without fetor, to the great relief of the patient. This was, however, but temporary, and in a fortnight Mr. Hillman repeated the operation, and let out four pints of pus from the first opening. A long iron-eyed probe was then introduced, and passed downwards and backwards until its point could be felt in the eleventh intercostal space, about four inches from the spine. This was now cut down upon, and by its means a drainage-tube was brought through the two openings, and tied together in the manner described by Dr. Goodfellow in the "Transactions of the Medico-Chirurgical Society."

The relief was found the next day to be very great. The pulse had fallen from 150 to 120; the right side of the belly had lost its fulness, and the heart's apex could now be felt beating in the fifth intercostal space, only half an inch to the left of the nipple. A large quantity of pus had drained away during the night. From this time the patient's recovery was uninterrupted. He had good nights, took his food well, and his countenance soon lost all indications of distress. During the first three weeks after the insertion of the tube the discharge of pus was copious.

In April, 1861, the right shoulder and right nipple were half an inch higher than the opposite side. There was marked flattening under the right clavicle, in which region, as low as the nipple, there was moderate resonance, with feeble vesicular breathing. Here, however, the old metallic ring was still audible. The heart's apex was beating in its proper place. There was also flattening of the posterior and lateral regions, with comparative immobility of the ribs. In these situations there was obscure resonance as low as the seventh rib, where hepatic dulness commenced; but there was no breathing audible, only the metallic sounds, although these indeed were less ringing. On the left side the breathing was loud and clear.

In May and June, 1861, the patient stayed at Hastings in the Infirmary, taking no medicine, and being mostly on the beach. He returned to London in good health, was ruddy, and free from all look of illness; could walk several miles, run, and ascend stairs without inconvenience. The side discharged about half an ounce of pus daily. There was but little change in the physical signs. The lung was evidently compressed, and bound down to the upper part of the chest so firmly that more expansion could not be anticipated.

May 6th, 1862.—His appearance, with ruddy complexion, is that of perfect health. He now works at his ordinary avocation. About a couple of drachms of pus are secreted in the twenty-four hours, and as the drainage-tube may possibly act as a seton, it was to-day removed, and Mr. Hillman introduced at the lower opening a short piece of elastic catheter, which was fastened in. The drainage-tube removed was not decomposed, although worn since July, 1861.

ST. BARTHOLOMEW'S HOSPITAL.

EMPYEMA FOLLOWING ACUTE PLEURISY; CARDIAC DISPLACEMENT; PARACENTESIS; WASHING OUT OF THE CHEST, AND USE OF A DRAINAGE-TUBE.

(Under the care of Dr. FARRE.)

THE time has not been sufficiently long since the use of the drainage-tube in the present instance to speaks of its effects; but, on the whole, the child's health is much better. It may be remarked, that six years is an early age for empyema; but as we have had occasion to observe, when recording a previous series of cases (*vide* THE LANCET, vol. ii., 1859, p. 482), it may occur in infancy, as in an instance related by M. Maurice, of Versailles, who tapped the chest three times and injected the pleura with iodine, recovery finally ensuing.

James H——, aged six years, was admitted on the 19th of November, 1861, with pleuri ic effusion into the left side of the thorax, the result of an attack of pleurisy eight days previously. The heart was found to be displaced towards the right side, and there was bronchitis. The pulse was over 150 beats. A blister was applied over the left side of the chest, and a mixture was ordered, consisting of acetate of potass, nitric ether, and liquor of the acetate of ammonia, three times a day; and a blue and-squill pill night and morning.

On the 24th of November the urine contained mucus and much albumen; pulse 140. He was not relieved by blistering, the cough was troublesome, and the left side continued to be much larger than the right. He lay on his right side.

Dec. 9th.—The heart beats chiefly in the epigastric region; respiration 18, and irregular; pulse 140.

12th.—The distension from fluid is so great that paracentesis was ordered, and sixty-four ounces of pus drawn off from between the sixth and seventh rib, with great relief.

14th.—He has been taking wine all along; was put on liquor cinchonæ; pus discharging freely from the wound of puncture.

27th.—He was ordered two drachms of cod liver oil night and morning, with the liquor of cinchona. The pus discharged daily is about two ounces and a half, and very offensive.

30th.—Respiration heard as far as the angle of the scapula. It had been primarily vesicular *below*, and bronchial above; the reverse of what is usually observed in thoracic effusion.

Jan. 1st, 1862.—A poultice of linseed meal and charcoal was ordered to be applied to the side.

13th.—The chest is more resonant than it was, and respiratory murmur is heard quite to the base of the lung; the bronchial breathing is less, and the resonance is well observed near the spine. On sitting up the right side bulges outwards, and the left shoulder is falling. Pulse 132. To have eggs, six ounces of wine, to be continued daily, as well as the cod-liver oil and cinchona.

20th.—The discharge increased and fetid; but he looks and feels better. Ordered, syrup of the iodide of iron, with cod-liver oil.

Feb. 3rd.—Left side shrinking from the shoulder to the hip, and becoming concave; he looks well; the discharge still continues, and is fetid; the right nipple seems much higher than the left; movements of breathing confined to the right side, but respiration is slowly returning in the left lung; bronchial breathing is heard at the apex of the left lung anteriorly down to the nipple; the dulness is less behind; there is fair respiratory murmur, but it is more or less bronchial throughout. Curvature of the spine well marked towards the affected side, which continues to contract. Pulse 130.

24th.—The right side measures thirteen inches, and the left ten inches and a half.

March 3rd.—He breathes quietly and tranquilly; looks well; pulse 132; abdomen rather large; discharge occurs from three places, to the extent of a pint in twenty-four hours, with an erythematous blush round the parts. Over the whole upper part of the left chest bronchial breathing is heard before and behind. He has been sitting up a week.

On April 7th the patient weighed thirty-nine pounds.

May 5th.—Weighs thirty eight pounds and a half; looks better; still a good deal of discharge. The chest to be washed out with a weak solution of permanganate of potass, and a small drainage-tube to be kept in.

ST. MARY'S HOSPITAL.

PULSATING EMPYEMA AFTER ACUTE PLEURITIS; A SWELLING ABOVE THE LEFT NIPPLE WHICH BURST SPONTANEOUSLY; RECOVERY.

(Under the care of Dr. CHAMBERS.)

ABOUT eighteen years ago some valuable contributions to the diagnosis of empyema were published in the *Dublin Journal of Medical Science* (1844), by Dr. Robert L. Macdonnell, of Dublin (now of Montreal). Most practical physicians are no doubt well acquainted with the views he enunciated, which have greatly added to our knowledge of the diagnosis of purulent effusion into the chest. Amongst other points discussed were, the vicarious purulent expectoration (of which some physicians doubt the possibility), and the diagnosis of pulsating empyema from other affections. The latter was called by Dr. Macdonnell "pulsating empyema of necessity," as the term "empyema of necessity" was always applied by the older writers to cases where the pus works its way outwards and forms a tumour. This appellation was criticised at the time, and in a subsequent essay he abandoned it. As it is frequently referred to clinically, we give it this passing notice for the benefit of the student.

In our present series of cases are two examples of pulsating empyema, which somewhat resembled aneurisms in regard to their formation; one spontaneously burst externally, and for several days large quantities of matter flowed away; and, what is remarkable, both cases have ended in recovery.

For the notes of the following case we are indebted to Dr. Linnington Ash, late house-surgeon to the hospital:—

Edward S——, aged forty-nine, of spare habit, was admitted June 2nd, 1857. He describes the symptoms of an acute attack of pleuritis of the left side, from which he has been suffering during the last eight weeks past. Has noticed the progressive development of a swelling just immediately above the left nipple, which is accompanied by a dull, aching, and occasional throbbing pain. Is aware of no cause, mechanical or otherwise, to account for it, and has enjoyed uninterrupted good health previous to this attack.

Present condition.—Papillæ of tongue elevated at tip and edges, which are clean; centre cracked and covered with a greyish fur; pulse 97, feeble but regular; skin now cool, but at times dry and hot; no cough nor difficulty of breathing now; bowels and urine natural.

Physical signs.—Percussion dull over cardiac region, extending to about an inch above the nipple line, and to a corresponding extent posteriorly, with absence of breath-sounds; breathing good above scapulæ and in front of chest; unusual prominence over left mammary region, which is firm, and pain not much increased on pressure; an indistinct undulatory motion, isochronous with the pulse, perceived in intercostal spaces below mammary line of left side; no aneurismal bruit to be heard. The whole left chest, as compared with the right, is perceptibly larger.

Treatment.—He was ordered six leeches to the region of the left mamma; a grain of acetate of morphia every night; broth diet, with extras.

June 3rd.—Pain relieved since the application of the leeches; sleeps and eats well; there is an elastic sensation in the tumour, and also a slight swelling below the nipple in the space between the fifth and sixth ribs.

6th.—Pulsation with first sound of heart over the most prominent part of the tumour. General health continues much the same, although he now has a troublesome cough, accompanied with copious expectoration of frothy sero-mucus, with clots of tenacious yellow muco-purulent matter, occasionally streaked with blood. Ordered a linseed poultice sprinkled with six drops of dilute prussic acid to be applied to the tumour, and changed three times a day; porter and extra meat.

10th.—Localized redness over normal position of heart's apex; in other respects much the same.

16th.—Centre of prominence raised; cough very troublesome, with copious expectoration of a greenish colour. Ordered fifteen minims of Hoffman's anodyne in a cough linctus every three hours.

17th.—Level of pus does not increase; is free from pain; general health somewhat improved; able to sit up; bronchial breathing in upper chest; pulse 100, full and regular.

26th.—The abscess has been gradually pointing since last report; pneumothorax now detected, with emphysema of the cellular tissue around the prominence, and impulse also felt there on coughing; pulse 120, very feeble. Ordered to have wine freely; the prominence to be touched with caustic potash.

29th.—The abscess burst to-day, discharging about half a pint of light-yellow, creamy-looking pus mixed with air, and very offensive.

July 1st.—Eschar has not come away, but there has been a continued and free discharge of pus, which comes out from around its edges; air goes in and out of the opening. Chest very resonant on percussion, from the clavicle down to the opening, from air in pleura; breath-sounds with mucous crepitations heard down to within an inch of the mamma; crepitation also from air in cellular tissue. Heart's action feeble; sounds heard most distinctly between the fourth and fifth costal cartilages, close to the left side of the sternum; after expiration the beat of the heart is communicated to the abdominal walls, and can be felt just above the umbilicus. Expresses himself as feeling much relieved since the abscess burst; coughs but little; sleeps and eats well. Ordered quinine and more wine.

4th.—The eschar was so loose, and moved so much with respiration, that, fearing it might fall into the pleural cavity, it was removed. Percussion resonant to the mammary line; a few metallic tinklings heard in the pleura, and there is still crepitation from air in the cellular tissue. Heart getting much more to the left side.

8th.—There is a very slight discharge from the wound. Lung resonant down to diaphragm. Heart's apex in normal position. General health much improved.

18th.—A very slight discharge continues to issue from the wound.

29th.—A flattening over the cardiac region is perceptible. The sinus is quite healed, and the wound as well as the intercostal spaces over the cardiac region fall in on a deep inspiration.

31st.—Cicatrix adherent to the lower border of the rib. Discharged cured.

In September, 1859, this man presented himself at the hospital for inspection, as requested when discharged. We had then an opportunity of observing that the chest moved freely, fully, and equally on each side; and that, with the exception of the scar, no trace remained to indicate the serious disease through which he had so successfully passed. He expressed himself as being in perfect health, and indeed appeared fully to be so.

CHARING-CROSS HOSPITAL.

SUBSTANCE OF A CLINICAL LECTURE ON A CASE OF THE SO-CALLED "PULSATING EMPYEMA OF NECESSITY;" RECOVERY OF THE PATIENT.

(Under the care of Dr. WILLSHIRE.)

FOR the notes of the following case we are indebted to Mr. Edward Chandler, clinical clerk.

W. S ——, aged thirty-five, a coachman, states that during the summer of 1861 he received a blow upon the left side, which deprived him of breath and speech for a short time, and gave rise to a rather enduring sickness. No fixed pain, however, settled at the spot, though an uneasy sensation continued to exist there. From this period his appetite diminished, and he experienced a general feeling of illness. About a month after the above occurrence he felt so unwell that he was obliged to take to his bed. He became rather thirsty, and had a certain amount of cough, though he did not shiver nor suffer from any stabbing pain in the side upon drawing breath. He placed himself under the care of a private practitioner, but in consequence of failing funds was obliged to apply to be visited as an out-patient of the Charing-cross Hospital.

The clinical assistant, upon visiting him on January 5th last, found him sitting upright upon a sofa, a position which he said he had been compelled to adopt for some time previous. He was breathing with much difficulty, and coughing frequently. The sputa were of a purulent character. In appearance he was very emaciated, the cheeks were flushed, and the ends of the fingers had a "clubbed" appearance. Altogether the patient presented an extremely phthisical aspect. He complained of palpitation of the heart, and laid some stress upon there being a "lump" in his side. Upon examination, a tumour was seen bulging out from the eighth intercostal space at the junction of

the diaphragm with the ribs. It was transversely oval, and about the size of a hen's egg. The superjacent skin was of a bluish-red colour, showing evident signs of impending ulceration. Upon closely inspecting it, a pulsation synchronous with the heart's beat was observed to be present. By palpation a pretty forcible pulsation could be felt, but not any thrill or bruit could be detected by it nor by auscultation. The first and second sounds of the heart, however, were to be heard there very plainly. The latter organ was but very slightly moved from its normal position. The intercostal spaces and integuments above the tumour felt doughy, whilst the tumour itself was very elastic and fluctuating.

The patient presenting so precarious a condition, and the tumour simulating in some respects an aneurism, the clinical assistant requested Dr. Willshire to visit the case with him. After having examined the patient as carefully as his condition would permit, Dr. Willshire arrived at the diagnosis of "pulsating empyema of necessity." He then passed an exploring needle into the tumour, and pus made its appearance in the groove of the instrument. An incision was now made, and a pint and a half of thick greenish pus evacuated. The patient at once expressed great relief. A moderate amount of stimulants with quinine and good diet were ordered. Subsequently the entrance and exit of air during the inspiratory and expiratory acts gave rise to quite a whistling kind of sound.

Having sufficiently recovered to permit of being moved, the man was now ordered into the hospital. He was there placed upon full diet, with two bottles of stout daily; and ordered to take the following draught three times a day,—namely: Disulphate of quinine, four grains; iodide of potassium, four grains; dilute sulphuric acid, five minims; aniseed water, one ounce. This treatment being continued for some time—poultices being applied to the wound in the chest—the patient steadily improved.

Feb. 14th.—The part still discharges; the pus, however, is small in amount and healthy in character. From the falling-in of the parietes of the thorax and non-expansion of the left lung, considerable flattening of the left side of the chest has taken place. Slight curvature of the spine is also evincing itself. The physical signs nevertheless prove that the lung is slowly increasing its function. He now sits up, and the air may still occasionally be heard rushing into the chest.

May 22nd.—He has left the hospital for some time, but presents himself weekly as an out-patient. The left lung continues to expand; the flattening of the side is diminishing; the spinal curvature is scarcely apparent; and the patient is picking up flesh and getting colour. A slight oozing from the wound still continues.

In a clinical lecture upon the above case, and upon the operation of paracentesis thoracis, Dr. Willshire drew attention to the latency of the pleuritic inflammation in W. S——. So latent indeed had it been, that it had not been diagnosed until the patient was seen upon the occasion when the matter was evacuated. The constitutional symptoms, however, had been so severe, and death so imminent, evidently from some pulmonary affection, as to lead to the belief that the patient was dying from phthisis. This was the more readily supposed to be the case from the state of the expectoration and the peculiar appearance of the ends of the fingers. Indeed he himself had a strong idea at first that behind the pleurisy, as it were, a tubercular malady would be found existing. Nor was it until very lately that he had relinquished this view of the case. There were one or two points in the history of the latter upon which he would more particularly dwell. One was the low spot in the chest at which nature would sometimes cause the pus to be evacuated. Occasionally it would be even lower than in W. S——. The matter would even perforate the diaphragm, and "point" in the loin. Secondly, they should remember the pulsatile character of the intercostal swelling, and the care that must be taken not to confound the latter with a tumour connected with the vascular system. In the third place, let them recollect the immense relief that may be given by freeing the pleura from pus, and the non-necessity for any untoward effects to follow from the entrance of air into the place such pus had previously occupied. He did not mean to say that the entrance of air should not be prevented were it easily to be accomplished; but it was not so under any circumstances, unless perhaps when the operation was performed under water, or with a complex apparatus of capillary trocars and suction-pump. Both these methods had been followed—methods which he considered as unnecessary as they were fussy and imperfect in one important relation. Since he (Dr. Willshire) had punctured in this case of "empyema of necessity," he had performed paracentesis thoracis upon a young gentleman suffering acute pleurisy, and from whom he had drawn off nearly two quarts of serum. During the latter part of the operation the air was frequently and plainly heard to enter the chest. The young gentleman's life was hourly in risk from impending suffocation, and hence the operation thus early. Some weeks afterwards fluid had again accumulated, and was then drawn off by the general attendant. After a few days, however, the patient unfortunately sank. Now, in this case not any effusion of *pus* had ensued, although the air had freely entered the cavity of the right pleura. Of this operation some practitioners thought very highly, whilst others of equal reputation placed but little trust in it. He himself believed that paracentesis thoracis might often be adopted with great benefit to the patient, provided it was had recourse to at a sufficiently early period. He thought no one was justified either in letting a patient die suffocated with his pleura full of fluid from acute pleurisy, or in permitting him to be gradually worn out from the same cause in the chronic form of the malady, without giving him the reasonable chance of prolongation of life, if not of complete cure, from the performance of the operation to which he had drawn the attention of the students.

ST. GEORGE'S HOSPITAL.

EMPYEMA AFTER ACUTE PLEURISY, THE SEQUEL TO NEPHRITIS AFTER SCARLATINA; DEATH.

(Under the care of Dr. FULLER.)

THE patient in the present case was primarily affected with scarlatina, which subsequently produced inflammation of the kidneys. A few days later a serous membrane was attacked with inflammation, ending in effusion: this was pleurisy. The case ended unfavourably, and after death the affected side of the chest was found to contain a quantity of pus.

Edward G——, aged seventeen, admitted Nov. 16th, 1861. Two weeks previously he had suffered from sore-throat and an eruption, in a house where there had been scarlet fever. On admission, the skin was not acting freely; he had puffiness about the face, and slight œdema of the feet and ankles, which, he said, appeared suddenly five days earlier. He had some palpitation; the heart's action was a little irregular, the sounds loud and clear. The urine was normal in quantity, but contained albumen and blood-globules. He complained also of aching in all his limbs. Ordered a vapour-bath; beef-tea; and a mixture containing tincture of digitalis and sulphate of magnesia.

Nov. 18th.—The urine became loaded with blood, but he felt quite well, and there was no excess of œdema.

19th.—The urine remaining unchanged, he was dry-cupped and fomented over the loins; the vapour-bath was repeated, and compound powder of jalap ordered.

On the evening of the 20th he was suddenly seized with most acute pain in the right side, which was relieved by eight leeches.

On the following morning there were dulness, some tubular breathing, and ægophony low down on that side. The bowels had acted two or three times, blood being found in the motions. He was ordered three grains of calomel and a quarter of a grain of opium thrice a day, and turpentine fomentations; but, the gums being affected on the 22nd, this was continued only at night.

On the 24th he again suffered most acute pain in the right side, where pleuritic friction could be heard; and for this he was ordered a quarter of a grain of opium every four hours, with a mixture of acetate of potass and sulphate of magnesia. Four leeches were also applied, and afterwards fomentations.

On the 25th he was reported to have passed a very restless and painful night, and when seen his breathing was very rapid and catching. He complained of pain across the abdomen to the back; was restless, and anxious to get out of bed; his pulse was rapid and feeble, and he was constantly eructating. An enema was given without relief. Towards the afternoon he began to sink rapidly, and died in the evening.

Autopsy fifteen hours after death.—There was no external œdema. The right pleural cavity contained a very large quantity of turbid fluid, with a copious sediment of pus. The walls were lined with a thick coating of shaggy lymph, and the lung was so compressed that no air would enter the pulmonary tissue. The left lung was more solid than natural, but not hepatized. The heart was healthy, the left ventricle being filled with partially decolorized coagula. The kidneys were much increased in size, especially in the cortical portion, and

weighed seventeen ounces. Their capsules were loose, the exposed surfaces smooth, and the lobular markings distinct. On section, the cones were found congested, the cortex presenting a coarse red-and-white mixture. The mucous membrane of the pelvis was vascular. Under the microscope the cortical tubes were seen to be distended with epithelium, of which the cells, when isolated, were full, and in all respects natural. The kidney wanted the white colour and fine texture characteristic of the scarlatinal tissue. All the other viscera and parts were natural.

EMPYEMA, AND PHTHISIS IN THE THIRD STAGE, WITH VOMICÆ; FATAL RESULT.

(Under the care of Dr. PAGE.)

Alfred L——, aged thirty-two, was admitted Sept. 25th, 1861. Eight weeks before admission he had suffered from severe pain in the right side, difficulty of breathing, cough, and expectoration; he continued to experience the latter symptoms upon entering the hospital, the expectoration being thick and muco-purulent. He had become greatly wasted, had been subject to night-sweats, and at the commencement of his illness had spat up a little blood. In the right lung, under the clavicle, the breathing was tubular, with prolonged expiration and occasional moist sounds; posteriorly, there were dulness, ægophony, and no increased vocal fremitus. In the left lung there existed dulness and prolonged expiration under the clavicle; posteriorly, healthy breathing. Two grains of calomel and half a grain of opium were ordered every six hours; also beef-tea, five ounces of wine, and a warm bath. He continued much the same, the cough being troublesome, expectoration less, and sweats frequent, until Sept. 30th, when he complained of pain in the right side and inability to draw a deep breath. He was then ordered eight leeches to the side, to repeat the pill at night and noon, and to continue the draught of acetate of ammonia &c., and also the wine.

Oct. 1st.—He had passed a restless night, but was quite free from pain, with a cool skin; he was sweating profusely, and low down on the right side a moist crackling sound could be heard. The bowels had not acted, and he was ordered an aperient.

5th.—He was expectorating largely, was very weak, and in a continuous sweat.

7th.—The patient dozed a good deal, looked very low, and expectorated less. Additional nourishment was ordered; but on the 8th his debility had increased, the sputa had become very offensive, and, getting from this time gradually weaker, he died at ten A.M. on the 5th.

Autopsy, twenty-eight hours after death.—The body was much emaciated. The heart was natural, with the exception of a small patch of lymph upon the anterior surface, of long standing. The right pleural cavity was very full of creamy pus, by which the lung was considerably compressed towards the mediastinum. The pleura was everywhere coated with a thick layer of soft lymph. The lung was filled with masses of crude tubercle and irregular vomicæ. In some places the vomicæ came to the surface, so that a perforation would have resulted but for the layer of lymph. The upper lobe of the left lung contained crude tubercles and vomicæ. The rest of the organ was sprinkled with miliary tubercles, and contained much serous fluid. No other part of the body was examined.

Reviews and Notices of Books.

On the Nature, Causes, Variety, and Treatment of Bodily Deformities. In a series of Lectures delivered at the City Orthopædic Hospital. By E. J. CHANCE, F.R.C.S., &c. In Two Parts. Part I. Lemare, Paternoster-row.

THAT the subject of bodily deformities, especially the large class of congenital deformities which fall under the care of the orthopædic surgeon, deserves to be treated of in a more philosophical manner than has hitherto been done will be readily admitted by those who have sought for information concerning it in books. This work by Mr. Chance, if not the first, is certainly the best attempt that has hitherto been made to present a clear and comprehensive exposition of the causes and origin of the deformities which affect the fœtus in utero. It forms the fitting introduction to the study and cure of the deformities of children. It does not speak well for the scientific attainments or devotion of the mass of orthopædic specialists that they should so greatly have neglected this interesting branch of their subject.

The volume contains six lectures, and we are promised another which will treat more fully of the surgery of orthopædics—of the methods of remedying deformities.

After an introduction devoted to an energetic and—we will admit, although not agreeing in all the author's arguments—very able defence of rational specialism in medicine and surgery, Mr. Chance gives his definition of deformity. He divides the subject into the following four groups—namely: 1st, the period of accession; 2nd, the system operated upon by the inducing cause; 3rd, the nature of the deviation produced; and, 4th, the nature of the inducing cause itself. This last question is discussed with remarkable ability, and the lectures devoted to it may be regarded as constituting the characteristic of the book. The author considers successively the causes inducing congenital deformities according to the period at which they exert their influence (1) on the ovum, (2) on the embryo, and (3) on the fœtus. Commencing with the influence of the inducing cause upon the ovum, Mr. Chance assigns the first place to error in the primary impulse of development, or originally existing in the ovum. In the illustration of this as a cause of deformity, he shows a minute acquaintance with modern embryology, considerable research in the collection of apposite cases, and excellent judgment and originality in interpretation. He shows the prevalence and nature of abnormities in the structure of the ovum of the bird by a classified list of the departures from the normal structure exhibited in the museum of the College of Surgeons. Then corresponding abnormities are shown to exist in other classes of oviparous animals, as in the snake, frog, &c. Even the vegetable kingdom has its abnormities springing from original error in the impulse of development. Similar illustrations are drawn from viviparous animals. The conclusion elicited from this appeal to comparative embryology is irresistible—namely, that, since throughout the vegetable and animal kingdoms we witness analogous deviations from normal structure dating from impregnation or soon after, we must assign a primary and most important part to error in developmental impulse in the production of deformities. Closely allied to this great fact is the hereditary transmission of bodily peculiarities either from the mother or the father. This subject is also well discussed, and its relations to the matter under illustration are well shown. The facts adduced make it evident that in the instance of the transmission of a peculiarity of form *appertaining to the father*—for example, six toes or fingers—the vivifying impulse which gave rise to such a peculiarity must have been transmitted to the ovum at the moment of impregnation; while, on the other hand, assuming the particular deformity to have been *peculiar to the mother's family*, the abnormal tendency must have existed in the ovum itself previously to its impregnation and liberation from the ovary.

Having placed the vexed question of the origin of deformities upon this physiological basis, Mr. Chance next passes in review the popular and vulgar theories. There is still a prevalent belief, not wholly without adherents in the medical profession, that mental emotion is a potent cause. The author well remarks, that whereas error in the primary impulse of development, or originally existing in the ovum, and hereditary influence, are causes which bear exclusively upon the ovum, mental emotion is reported to exert its influence, not only upon the ovum, but also upon the embryo and fœtus. The facts and arguments by which the emotional theory is combated, are well stated, and must set the question altogether at rest. The author's argument is directed against the popular prejudices as to the influence of maternal emotion; but what will he say to a belief current in Africa that paternal emotions may affect the child? Captain Speke, the African traveller, has the following amusing anecdote:—"On once shooting a pregnant Kudu doe,

I directed my native huntsman, a married man, to dissect her womb and expose the embryo; but he shrank from the work with horror, fearing lest the kid striking his mind should have an influence on his wife's future bearing by metamorphosing her progeny to the likeness of a fawn!" This strikes us, to whom the fantasy is new, as very ridiculous; but in what respect is it more ridiculous than our notions of maternal emotion?

Proceeding with his investigation, the author discovers prototypes, or similar forms of congenital deformities, in the condition of the embryo at various stages of its development. Thus the club-foot is a stage in the formation of all embryos—i. e., the embryo, although perfect as an embryo, is absolutely deformed as compared with a child at birth, and such is its condition for at least one-third of the period of uterine existence.

Another cause of deformity is mechanical interference with the movements of the embryo or fœtus. Under this head are considered the effect of strangulations by the umbilical cord and false bands; pressure upon the uterus; the amount of liquor amnii; disease of the fœtus. To the latter cause Mr. Chance attaches especial importance, citing Marshall Hall in support of the opinion that the fœtus in utero is liable to spasm, which may result in abnormal contractions of particular muscles.

Having treated, exhaustively we may say, of the causes of congenital deformity, the subject of deformities acquired after birth is investigated in an equally satisfactory manner. In this place the influence of rickets and of other diseases is considered. Two lectures are devoted to acquired deformities. Space will not allow us to follow the author's exposition. We can only express our thanks for the clearness and admirable method with which this important subject has been treated.

As we hinted at the commencement, the author exhibits a little natural warmth in his defence of specialism. But it is due to him to say, that he has handled his subject with so broad and vigorous a grasp that he altogether redeems it from the taint of specialism which has so long defiled it. By the surgeon engaged in the treatment of deformities, the book must be read for the sake of the practical information in which it abounds; by the physiological student it will be read for the sake of the interesting survey it gives of one phase of embryological knowledge, and a fuller exposition than has ever before been given of the applications of this knowledge to a department of practice; by the obstetric practitioner and teacher it will be consulted with certain interest and advantage, as supplying a much needed chapter in the obscure history of intrauterine life. Indeed, a book that has so little of the narrow spirit of the specialist in it is rarely seen. It could only have been produced by a skilful anatomist, an acute physiologist, a sagacious surgeon, and—the numerous life-like illustrations by the author's hand attest—an accomplished artist. With unusual satisfaction we commend the book to our readers.

The Pathology and Treatment of Phlegmasia Dolens. Being the Lettsomian Lectures delivered before the Medical Society of London during the Session 1861-62. By F. W. MACKENZIE, M.D. London: Richards.

DR. MACKENZIE some years ago laid the foundation of a solid reputation by his papers in the "Medico-Chirurgical Transactions" on the Origin of Phlegmasia Dolens. Those "Transactions," indeed, contain few examples of a pathological problem investigated with more precise experiments and explained with more logical order. We think he has done well in selecting the same subject for his Lettsomian Lectures. This new form admitted of fresh illustration of his theme, and especially of pointing out more fully the clinical applications of his views. After a brief historical survey of the various theories held concerning the nature of phlegmasia dolens, the lecturer, dwelling for a moment upon the one until recently generally entertained—namely, that the disease was a consequence of phlebitis—thus epitomizes his objections to this doctrine:—

"1. Crural phlebitis, in a pure and uncomplicated form, cannot give rise to all the local and general phenomena of the disease, and therefore cannot be its proximate cause.

"2. Phlebitis itself is, for the most part, not a primary, but a secondary affection; and in the great majority of cases is a consequence of the circulation of impure or morbid blood in the veins.

"3. The proximate cause of the disease is, therefore, presumably a morbific condition of the blood, which I have experimentally shown to be capable of producing not only the lesions of the veins met with in the disease, but all its other phenomena."

We do not think that the indications or requirements of a complete demonstration of a pathological proposition could be more exactly stated. Analysis and synthesis are unhesitatingly appealed to to prove the author's position.

Following the order of the Lectures, the clinical history of the disease is first traced. From a large array of cases, carefully analyzed in relation to the productive causes, the author argues, that as the antecedents of the disease are of the most widely-spread and diversified character, and not even peculiar to the female sex, we may at once discard all those theories which connect it exclusively with either lochial or lacteal suppression, uterine injury or inflammation, or, in fact, with any peculiar state of the uterine system subsequently to labour.

In the next place, the author proceeds to his physiological or experimental proofs. He ties the crural veins of animals, he excites inflammation of the external coats of the veins, and does not produce the phenomena of phlegmasia dolens. He then vitiates the mass of the blood by injecting lactic acid, and reproduces the necroscopial appearances found in the veins after ordinary phlegmasia dolens. His clinical and experimental researches alike prove that phlebitis occurring as a local disease, and from a local cause, is never associated with the phenomena of phlegmasia dolens, nor under any circumstances can give rise to it; but that when phlebitis arises from, or in connexion with, constitutional causes calculated simultaneously to infect the blood generally, then the lesion of the veins is generally accompanied with the symptoms of phlegmasia dolens.

The third Lecture is devoted to the application of the principles deduced to the prevention and cure of the disease. The subject is treated with all the vigour of the practical physician, enlightened by the knowledge of the experimental pathologist. It is no mean testimony to the merit of the author that his views concerning phlegmasia dolens closely resemble those adopted by most of the more advanced modern pathologists. The cotemporaneous or subsequent enunciation of like opinions does not, however, detract from the credit due to Dr. Mackenzie. His argument is fairly his own by the right of an original course of investigation. It cannot be doubted that his researches have exercised an important influence in spreading those more correct doctrines concerning phlegmasia dolens and puerperal fever which are now current.

For an accurate and instructive account of the disease, we could not refer our readers to a better source than these Lectures of Dr. Mackenzie.

A Manual of Botanic Terms. By M. C. COOKE, Author of "A Manual of Structural Botany." With Illustrations. pp. 90. London: Hardwicke.

THE peculiarities of the present glossary are, that the terms are written in the Anglicized forms under which they are commonly employed, and the derivations from the Greek are printed in the letters of the Roman alphabet. We believe the work to form a tolerably complete vocabulary of the technicalities of the science of botany at present in use, those words only having been excluded which are obsolete, or, not being special, are to be met with elsewhere. Of the illustrations, however, we cannot speak in terms of high praise. They are quite of the past; they are simply diagrams, but sufficiently illustrative.

THE LANCET.

LONDON: SATURDAY, MAY 31, 1862.

ONE of the most painful and embarrassing positions in which the medical practitioner can be placed, is when he is called upon to express in a court of law a quasi-judicial opinion upon the practice of a professional brother. A great part of the difficulty experienced arises from the natural and just desire not to condemn, or to seem to condemn, a fellow-practitioner who may, were all things fully in evidence, have acted with reasonable skill. But another part of the difficulty arises from the forms of procedure in the conduct of a trial, and especially in the mode of taking evidence, peculiar to our courts.

As this is a subject of deep practical interest to the profession, it is desirable to offer a few reflections upon it. It is clear at the outset, that we have not the power to change or to modify the forms of legal procedure. Medical witnesses, like other witnesses, must bend to those forms. It becomes us, however, to consider carefully how far we can secure the great object of telling what in our consciences we believe to be the "whole truth," and to escape from the toils of opposing counsel, whose subtle and practised energies are bent upon extracting just that portion of the truth which may suit their purpose. Probably no scientific witness has ever come out of the witness-box perfectly satisfied that he has said nothing more than he ought, or that he had not left unsaid something that ought to have been said. It is one of our national weaknesses to repose in implicit faith upon the assumption that our judicial forms constitute the most perfect system ever devised for the discovery of truth, and especially for the protection of the innocent. It may, nevertheless, be fairly doubted whether the almost entire abandonment to opposing counsel of the duty of eliciting the evidence by question and answer be right. If the ordinary course be followed out step by step, certain defects will become manifest. Take, for example, a charge of malapraxis, in which a person complains that he has suffered physical and pecuniary injury from the want of skill or from the negligence of a medical practitioner. As a matter of fact, such a charge can hardly be sustained or disproved unless appeal be made to medical witnesses. No unskilled witnesses can rightly explain the facts of the case, or interpret and pass judgment upon the conduct of the defendant. Hence, the prosecutor, as his first step, sets about "getting up" medical evidence to bear out his theory of malpractice. In most instances appeal is made to two classes of medical men. First, there are the practitioners—perhaps local competitors with the defendant—who have personal knowledge of some of the facts. Secondly, it is generally thought necessary to obtain the testimony of men who have acquired special eminence, and who, it is expected, will express authoritative opinions upon the case, which will influence the verdict of the jury. Now, in the preparation of the evidence before its production in court—that is, in drawing up the briefs for counsel, considerable astuteness is usually exercised by the attorney. His object is to extract from the intended medical witness all that he knows and thinks concerning the matter. As the prosecutor's attorney probably knows only one side of the case, and is disposed to see only one side, he places before the "eminent authority" whom he is anxious to catch, such a statement as will be likely to impress him with the belief that the client has been grossly injured. The medical man, standing on his guard, as prudence suggests, seeks for fuller information, and makes those inquiries which his professional experience dictates. He may thus elicit enough to satisfy him that no wrong has been done, and will advise the abandonment of the action. But his advice may not be taken, and certainly the adverse opinion he has given will be suppressed. That witness is lost to the cause of Truth. He might serve the purpose of the defendant; but the defendant may not apply to him. He would be of excellent service to the court and jury; but he is not produced. The theory of English law is that the opposing parties may be trusted to bring out the whole truth between them by the conflict of interests. In practice this theory is often delusive. Witnesses the most important are often not called at all. But we will suppose that the prosecutor's attorney has persuaded the medical authority that a gross wrong has been done, and that it is a matter of duty to society to say so. He is asked to write down his view of the case. This is embodied in a brief. From that moment the medical witness is in a position of danger. He runs imminent risk of being committed to opinions which, howsoever just in the abstract, may become unjust when applied, as they will be on his authority, to the particular case. He comes into court, hears the case as stated and proved by the witnesses for the prosecution, and is then called upon straightway to pronounce his opinion upon the *ex-parte* case before him. The position is not a fair one. He must not expect that the counsel who calls him will give him the opportunity of saying all he might wish. He cannot even rely upon being asked all he has written down. Some important feature of the statement he gave to the attorney will be held back if the sagacity of counsel detect in it what will tell against the argument. Possibly the judge or the jury may put such questions as will bring out more fully the witness's opinions. But still he may step down, leaving upon the court a totally erroneous impression of what his judgment would be had he heard the whole case—the evidence for the defence as well as that for the prosecution, and had he been enabled to lay down fully and methodically his matured views. It often happens that in these cases of alleged malapraxis, the opinions of the medical witnesses on both sides would be completely reconciled if they were not ingeniously kept in seeming contradiction by the tricks of counsel, and by the practice of calling one set of witnesses at the conclusion of the prosecutor's case, and another set at the conclusion of the defendant's. It need not be said that this is one of the causes of the vulgar imputations against the consistency and honour of the profession of medicine which the policy of interested persons, or the folly of the ignorant, prompts them to employ to weaken our legitimate authority.

The end of such a trial as we have imagined may be that the defendant suffers, and justice is virtually defeated, because an authoritative professional opinion has been given upon a garbled case, and because the skilled witnesses have not been suffered to express all the conclusions they had formed. On the other hand, it also constantly happens that, although the medical witness called for the prosecution may have actually given decisive evidence in favour of the defendant, he is repre-

sented as a hostile witness who has given harsh testimony against a professional brother. By the forms of our law he is classed amongst the witnesses for the prosecution. So strong is the bias drawn from this circumstance, that people can hardly believe in the possibility of a scientific man giving purely impartial testimony. That some care is required on the part of the medical witness to guard against the evils we have pointed out is strongly felt. Possibly some legislative remedy introducing some modification in the forms of procedure may be required. The medical witness may to a certain extent protect himself by the exercise of great discretion and coolness. But the practical question which forces itself upon our mind is, whether it is not desirable to postpone the evidence of all the purely skilled witnesses, who do not speak to the facts of the case, until the conclusion of the defendant's case. It would certainly be desirable to place in the hands of the judge the full statements of the opinions of the skilled witnesses, so as to counteract the tendency to suppress which is apt to arise under the "discretion" of counsel.

WHEN a good illustration of the value of sanitary reform has been needed, modern hygieists have been wont to point to Liverpool. And with justice: for whilst but a few years since the usual death-rate of this town was about 36 in 1000, it is now as low as 26, and has in a very healthy year descended even to 24·2 per 1000 of population. By sanitary reform, then, the gain to Liverpool has been between three and four thousand lives a year. It is probable that the closing of cellar dwellings simply has produced a large share of this increase in the healthiness of the western city. A report lately received from a well-known Sanitary Association* makes us acquainted with the agreeable fact that Manchester is fast rivaling Liverpool in her social ameliorations. During the last ten years the health of the former has greatly improved, the mortality in the township alone having diminished from 36 per 1000 in 1858 to 30½ per 1000 in 1860. The way in which the Manchester and Salford Sanitary Association does its duty is as praiseworthy as the character of the duty is important. Its working by sub-committees upon special objects which are at the moment urgent is greatly to be commended. There is nothing like striking the iron while it is hot. For example, numerous cases of lead-poisoning from the use of lead service-pipes having been brought to the knowledge of the General Board, a sub-committee was at once formed to investigate the matter. The report of the latter on the action of the water supplied by the Manchester Corporation upon lead is appended to the General Report before us. To Dr. CALVERT, also, of the Laboratory of the Royal Institution, thanks are due for some valuable assistance in working out the problem. The experiments were continued for nearly two years, and involved the testing of more than three hundred samples of water. The result has been to show that the Manchester water does act upon leaden pipes to a very serious extent, and that this action continues for a much longer period than is generally supposed. When the water remains stagnant in the pipes, it not only becomes highly charged with a dangerous poison, but a coating of the latter is formed upon the inner surface of the pipes, which coating is subsequently detached by the water passing through, and which it impregnates with lead. Even after pipes have been used for a considerable time, the quantity of lead contained in the water which has remained twenty-four hours in the pipes is quite as great as in cases where serious effects have resulted to persons using the water. We learn, further, the important fact that the practice of lining leaden pipes with tin affords protection of so small and temporary a character as to become of no practical value. So long therefore as leaden pipes are used in Manchester, it is very important that persons should not employ for dietary purposes any water which has been allowed to remain in the pipes for even a few hours. A pipe for the conduction of water is wanted, in some of our densely-populated labour districts, which would be economical in cost, easy of application, and upon which water would not act prejudicially. As the sub-committee very properly observes, the first step towards remedying the evil is the thorough conviction of its existence, and of the serious results which may follow if its significance be disregarded. Lead, it should be remembered, is a cumulative poison; and water containing it may be used for a considerable time, and a foundation thus laid for much suffering and danger, before the symptoms become so marked as to warrant a medical practitioner in deciding that the case is one of saturnine intoxication. Hence prevention here is of paramount importance, where both poison and disease are of such insidious production.

In Mr. ROWSON'S paper on the "Variation of the Death-rate in England" certain statements were made which led the Association to appoint a sub-committee to inquire into the causes of infant mortality in Manchester, and to suggest the best means for reducing it. After much consideration, the sub-committee came to the conclusion that the chief of the causes in question are want of knowledge and want of care in the management of children by their parents. In order to combat these evils, it was determined to issue cards giving plain instructions to parents upon the subjects of "Food for Infants," "Clothing and Cleanliness," and on "Nursing Sick Children." These cards were made somewhat ornamental, and so prepared that they could be hung up in cottages, to be readily appealed to whenever their assistance was required. We have, besides the sub-reports alluded to, those of committees upon "Cottage Dwellings," "Open Spaces and Playgrounds," the "Comparative Mortality of Manchester and Liverpool," and an "Analysis of Weekly Returns."

All unprejudiced observers must admit the truth of the assertion of the Manchester and Salford Sanitary Union, that in sobriety and cleanliness, in education, in domestic habits, in thrift, and in the power of organization, the poor, not only of Manchester, but of every other place in Britain, have during late years made great advances.

"Of almost every facility placed within their reach—of the baths and washhouses, the public parks and libraries, the numerous schools and mechanics' institutes, the savings-banks and co-operative associations, the sick and clothing clubs—they have taken advantage more or less. They have still vices peculiar to their class; but if, notwithstanding all that has hitherto been done for them, those vices are almost the necessary consequence of their condition, to bring them up as accusations is most unreasonable.

"Those who do so should remember a remark made by Washington to some members of Congress who had been indulging in the agreeable pastime of grumbling. In reply to

* Report of the Committee of the Manchester and Salford Sanitary Association, 1861.

their complaints of the shortcomings of his soldiers, he assured them that 'it was a much easier and less distressing thing to draw up remonstrances in a comfortable room by a good fireside, than to occupy a cold, bleak hill, and sleep under frost and snow without clothes and blankets.' So with regard to the rich man and the operative, there are two points of view from which the state of the latter may be contemplated; and the view from one point is very different to that from the other. To the gentleman who, at the conclusion of the day's business, sits at his mansion at Eccles or Didsbury, surrounded with every luxury and comfort that money can procure, cracking his walnuts and sipping his claret in a social circle of friends, the view is very different to what it is to the occupant of Cupid's-alley or Lad-lane, who, having spent a quarter of an hour in 'bolting' his tea, has before him three or four hours of utter vacancy." (Report on Open Spaces and Public Playgrounds, p. 10.)

Whilst not only Manchester, but the community at large, are greatly indebted to this useful Association, the reports which it periodically issues will be found highly suggestive and available for all who are engaged in the great and philanthropic work of Sanitary Reform.

THERE will be three vacancies to fill up at the next election of members of the Council of the College of Surgeons. Mr. COCK retires by rotation, but doubtless will be re-elected. The resignation of Sir BENJAMIN BRODIE and the death of Mr. STANLEY have brought three candidates into the field to fill the two gaps thus caused in the Council. Mr. PAGET, of Leicester, Mr. JOHN ADAMS, and Mr. LANE, are the senior Fellows on the list eligible for the appointment. We understand, however, that Mr. BISHOP, who for several years was an active and efficient member of the Board, will again offer himself to the notice of the electors. It is stated that the members of the Council were so satisfied with the manner in which Mr. BISHOP fulfilled his duties that they are desirous of reinstating him in his position. As his defeat at the last election was quite exceptional to the usual course of proceeding, and as there was no personal objection to him, he has strong claims upon the consideration of the Fellows. A great principle was established by the election of Mr. FERGUSSON—a principle essential to the independence of the electoral body. A man so justly eminent in his profession as Mr. FERGUSSON was the proper person to be put forward on such an occasion. His election was certainly a triumph, whether regarded in the light of doing justice to the claims of a great Surgeon, or as the overthrow of a system of routine which might make an election at the College a mockery. As the Fellows have vindicated this principle, the re-election of Mr. BISHOP would be a graceful acknowledgment on their part of the services which he has rendered to the cause of progress. We have nothing to say against the fitness of either of the other candidates; both are men of high mark and respectability; one amongst the foremost of provincial, the other of metropolitan, surgeons. We simply state the plain facts of the case, and have no doubt that the Fellows at large will act in such a manner as will show that they are fully alive to the importance of the privileges which they possess. If we have a bias, waiving all personal considerations, it is certainly in favour of a provincial candidate. The College of Surgeons is now *of England*, and not *of London*, as it formerly was. It is desirable, therefore, in every point of view, that country surgeons should be represented in the Council. The reasons for this are so obvious that it is unnecessary to enlarge upon them. The interests of the profession demand that no exclusive principles should be in the ascendant. It has been a disgrace to the College that hitherto the members of its governing body should have been selected entirely from London surgeons. No greater names are connected with our profession than those of many men who practise far away from the metropolis. To pass over such men in the present day, except under most exceptional circumstances, would be an act of the grossest injustice. However deficient the present system may be in many of the requisites essential to a really independent *bonâ fide* election, it still possesses at least the semblance of election by suffrage. Until a more efficient system be established, it is the duty as well as the interest of the Fellows, whether they practise in London or the country, strenuously to preserve their privileges. It is not on light grounds that a departure from routine should be recommended; but circumstances may arise (as they have arisen) which may demand the overthrow of a narrow and bigoted policy. The assertion and the assumption of a right may often be necessary, both for the control of a vicious system and as a demonstration of the power which is possessed by those who are *de facto* the arbitrators of the destinies of the College.

Medical Annotations.

"Ne quid nimis."

THE DISEASES OF THE POOR.

THE arrangements are in process of completion for the session of 1862 of the International Philanthropic Congress, which will be held in London on June 9th and following days, in conjunction with the sixth annual meeting of the National Association for the Promotion of Social Science. This *réunion* has for its object the amelioration of the condition of the labouring and suffering classes. Its previous meetings have been held in Frankfort, Brussels, and Paris; and those meetings were attended by official delegates or other representatives of upwards of twenty countries. On this occasion, the presence of physicians, philanthropists, and statists from all parts of the Continent and of the United Kingdom, due to the International Exposition, favours the anticipation of an important Congress in London. As before stated, the meetings will be held in conjunction with those of the National Association, and will deal with the condition of the working classes mainly from a benevolent point of view, giving special attention to the organization of charitable and provident institutions. This will be an excellent opportunity for discussing the question of the internal management of the metropolitan hospitals, and for gathering information which may help to correct the present great abuse of medical charities by persons who have no claim to benevolence, and who trade on it as a kind of pitiful economy. The honorary secretaries are Mr. Twining and Mr. James T. Hammack. They have drawn up, in the name of the Committee, an admirable programme and tabular classification of the matters falling within the scope of the discussions of the Congress. These suggestive chapters traverse a very interesting field of discussion, and in the solution of the problems proposed medical men may yet afford, as they have hitherto afforded, the most essential services. Many of the questions are of purely medical interest. Thus, in the chapter on the Pathology of the People and the Industrial Classes there is matter for a whole volume of important writing. It proposes as subjects on which information is sought—the grave mischief which in various countries results from the ignorance

of the population on such matters as the diseases, injuries, and deformities of young children; from their blind faith in empirical medicines; and the absence of treatment or the maltreatment of diseases in their origin. It suggests the discussion of the most advisable measures to be taken for the propagation of physiological and elementary medical information (1st) among the youth of both sexes, and (2nd) as part of the special education of schoolmasters, clergymen, and other persons whose enlightened advice may exercise a salutary influence; results of the different modes of organizing medical aid at the homes of the poor; cheap medical contracts by the parishes for the treatment of the poor; articles in medicine and surgery which are capable of replacing those of which the price puts them too often beyond the reach of the poor; precautions against hydrophobia; definition of, and regulations concerning, contagious diseases; accidents and their preventable causes; industrial diseases, and the means of averting or mitigating them. These are a few of the heads proposed; but the programme is drawn up with so much completeness, and evidences so thorough a knowledge of the sufferings of the classes designated, with so intelligent a foresight of remedies, that it is in itself a document of great interest, and one of which we recommend the perusal by the many persons who have the knowledge, the will, and the power to aid in the amelioration desired.

THE ROYAL SOCIETY.

ON Thursday, the 5th proximo, the annual election of fifteen new Fellows into the Royal Society will take place; but whether any additions, selected from the remaining forty-five candidates, will be made at that meeting appears problematical. Should sceptics think that only fifteen philosophers, not being peers or Privy Councillors, ought annually to become recipients of the Fellowship of the Royal Society, let them examine the lists of unsuccessful aspirants during the past ten years, and they will find there the names of individuals of world-wide reputation, who were well entitled to any honour that distinguished body could bestow. The system pursued being even deemed illegal, and curtailing vested rights granted by charter, besides materially lessening the Society's supplies, it seems reasonable that the existing plan should be reconsidered, in order to admit the many eminent men who were formerly ambitious of being elected, but who had retired, believing all prospect of ever attaining the much-coveted distinction of "F.R.S." to be utterly hopeless while the power of selecting the limited number of fifteen remained wholly with the Council. The just way of proceeding would be to appoint two special days during January and April (as electors are then likely to be most numerous), when the names of the candidates, with their respective qualifications and claims, having been previously circulated among the Fellows, the general body could impartially exercise whatever elective privileges they possessed, in the way thought most expedient, without the recommendation of any committee whatever, and as usually prevails at scientific associations throughout Great Britain; the scheme adopted by the Royal Society being an anomaly, and a great innovation upon former usages.

BRITISH MEDICAL ASSOCIATION.

THE Annual Meeting of the British Medical Association will be held in August of this year in London, at the Royal College of Physicians, under the presidency of Dr. Burrows. At the provincial meetings hitherto the practitioners and local magnates have commonly exercised a liberal hospitality to their visitors, and have done their utmost to render the visit agreeable and instructive. A committee has been appointed for raising some £300, which are calculated to be necessary for the reciprocation of these country welcomes. A *conversazione* and refreshments are included in that estimate. The last is a capital notion; for hunger will have its way, and practically it is found at all these congresses that about lunch time the audience thin rapidly, and a large proportion of those who have departed for purposes of refreshment do not find their way back again. As the committee very neatly phrase it, without this material element of comfort, past experience leads them to expect that "the attractions of private hospitality at distances so considerable as to preclude the possibility of a speedy return will either lead to a suspension of the proceedings in the middle of the day and their consequent prolongation to a late hour in the afternoon, or will leave without an audience those distinguished members who have undertaken to supply important and interesting papers." This is a little bit of Social Science which we strongly recommend to the notice of the managers of two other Congresses at Guildhall and Burlington House. Sight-seeing and refreshments are to be included in the programme of the Association meeting. Thus the opportunity of renewing old acquaintanceships, greeting old friends and making new ones, will probably suffice to draw a great number of our provincial brethren to London in this sight-seeing year.

LARYNGOSCOPY.

GREAT interest has been manifested in the laryngoscopic demonstrations of Dr. Czermak at the *soirées* of the Royal Society, University College, and at the hospitals. The question which most interests us here is to what extent that method can be practically applied. There is, indeed, no doubt about the remarkable illumination of the larynx by this method as Dr. Czermak practises it on himself. Gifted with a capacious air-tube, and trained by long practice to the most complete tolerance of the contact of a large mirror against the usually sensitive surface of the pendulous curtain of the palate, he is able to exhibit to everyone the surfaces of the epiglottis, the cartilages of the larynx, the true and false vocal cords, even the cartilaginous rings of the trachea, and sometimes the division of the bronchi. Everyone can see for himself the rapid movements of the cartilages, the vibrations of the cords and their alternate contractions, and can assist for the first time, with perfect ease and without any training, at the marvellous spectacle of the production of phonation. The movements by which are produced the various tones of the exquisite music of the human voice are no longer the questionable subjects of abstruse theory, but are visible to every eye. The question has advanced even a step further, for by an ingenious but very simple arrangement, Dr. Czermak has obtained photographs of the interior of his larynx, showing the various positions of the cords in some of the phenomena of phonation. These photographs are unique, and possess a high physiological interest as true sun-portraits of the interior of a wondrous organ never before thus visited by the light. Advancing from the illumination of the larynx to that of an organ yet more hidden from the eye, Dr. Czermak effects the display of the cavities of the posterior nares and of the Eustachian tube. With one hand he lifts the pendulous curtain of the palate by a small, blunt hook, and passing an obliquely-placed mirror far back into the fauces with its face turned upwards, he gives an excellent view of the Eustachian tube, the turbinated bones, and the opening of the nostril. That no doubt may exist of the topography of the parts to the eye of the uninitiated, he passes along the floor of the nostrils an Eustachian probe, of which the free point is then seen projecting from the posterior opening. An instructive lesson may be thus obtained of the common self-deception of some surgeons who are "accustomed" to probe the Eustachian tube through the nostrils, and who trust to their erudite touch for the conviction that they have effected this proceeding. If the eye is brought to bear upon the manipulations, it will be seen that it is not difficult to catch the instrument in front or behind, or anywhere but in the tube, and still to believe that it has really entered it. The important question as to the general applicability of this method is not, however, solved by the autoscopic demon-

strations of Dr. Czermak, physiologically interesting as they are. How do patients bear this manipulation? or how often can it be practically applied to disease? In the Sydenham treatise, edited by Dr. Gibb, there are numerous pathological observations indicating a real sphere of wide utility; and we have heard of a number of cases in which lately in London Dr. Czermak has succeeded in elucidating the causes of obscure hoarseness, dyspnœa, and other laryngeal affections. But from what we have seen, we apprehend that there is often a degree of intolerance which renders this method inapplicable, except after a special training, to which not every patient would submit, and that the use of the laryngoscope itself demands an educated and skilled hand in the operator.

The limits of rhinoscopy are still more defined; and we doubt whether one patient in a hundred would be able to submit to a satisfactory examination until after he had accustomed his palate to contact with the mirror and hook. Many persons would never get over the tendency to retch. In order to be practised successfully in this country, laryngoscopy will need, therefore, to be regarded as an art of some little difficulty, and requiring perseverance on the part of both practitioner and patient. To expect too much from it is to ensure disappointment; but those who are prepared to adopt it, with all its necessary limitations and its perfectly superable difficulties, will find it an admirable adjunct to their existing methods of research.

INDIAN MEDICAL SERVICE.

AT last we are able to give the medical officers of the Indian Army some information regarding the long-looked-for Amalgamation Scheme. We regret to say it is in the last degree unsatisfactory, and it is feared will cause bitter disappointment to all whom it concerns.

The Indian Finance Committee submitted to Lord Canning and his Council a scheme so just and liberal in its provisions, so fair to all parties, that had it been promulgated it would have been hailed as a boon by the whole medical service in India, who, any more than their brethren of the Home Service, have not been accustomed to very generous treatment on the part of their masters. This scheme, probably because it was thought too good "for the doctors," was rejected by Lord Canning and his Council; and Sir Charles Wood has endorsed this decision. Another scheme, drawn up by Colonel Norman, was sanctioned by the Supreme Government of India and sent home; but, instead of being adopted and promulgated, we understand another reference has been made to India "for more information." In other words, the question is got rid of for another year.

We despair of conveying to our readers any adequate notion of the injustice of this treatment. For years past promotion, particularly in Southern India, has been so slow in the medical service that men serve sixteen, seventeen, and even eighteen years in the burning climate of the Carnatic in the subordinate grade of assistant-surgeon. Since the Government of India was taken by the Queen, and the Department was told that a scheme of amalgamation with the Home Service was in appreration offering inducements to the officers to retire to facilitate the new arrangements, promotion has stopped entirely. There has hardly been a single retirement for three years, and many assistant-surgeons all over India are now entering on their twenty-first or twenty-second year of service in that grade; and this state of things is certain to continue for another year. We are sorry to say we see no remedy amongst those who could help, if so disposed, by stirring the question in the House of Commons; not one feels sufficient interest in this injured body of public officers to take any trouble in the matter, and Sir Charles Wood will be allowed to trifle with the interests of men who, because they are without powerful friends in high places, are entirely at his mercy.

So it has been; so it will continue to be, until the young men in our great schools of medicine, acting together for their own interests and those of the profession at large, decline to compete for medical appointments in any branch of the public service. The authorities will then be *starved* into treating the medical officers of the army and navy, at home and abroad, in a manner commensurate with their merits and the service they render to the public. This is the only remedy we can suggest; and we are certain, if it is only acted on with firmness for six months, it will be effectual.

THE GLASGOW FACULTY.

IT is odd enough to find Scotland eloquent upon the woes of Ireland, upbraiding their Irish brethren with calmly submitting to the insults of the Sassenach, and inciting them to struggle more loudly and more lustily against the injustice of the oppressor. In a document which has been forwarded to us on the part of the Glasgow Faculty of Medicine, the members of that Faculty occupy themselves with arousing the indignation of the Irish practitioners against the Births and Deaths Registration Bill of Sir Robert Peel. They say—

"Doubtless, relying on the honour of Sir Robert Peel, and believing that he would not degrade himself by being guilty of gratuitously insulting an educated class of the Irish people by legally drawing a most invidious and uncalled-for distinction between them and those of the same class among his own countrymen, few of the members of the profession have looked into the details of his Births and Deaths Registration Bill, and consequently the mass of the profession may be ignorant of the real nature of several of its clauses. A careful examination of this Bill, however, painfully reveals the fact that should the 31st section in its entirety be allowed to pass into law, every medical man in Ireland will find himself forced, under an odious system of coercion, to give an important portion of his time and knowledge, gratuitously, for the public benefit. Every medical man in Ireland will find himself constantly in fear and terror of the constabulary force, who are to be appointed spies and informers on his actions, and at whose mercy he will continually stand; the duty of the force being, to hand over to the criminal officers of the Crown for prosecution anyone who refuses from principle, or who may neglect, to comply with the law. This state of matters is wholly unknown in England, the inhabitants of which country—to their honour be it said—would not for a moment submit to see imposed on their medical advisers so gross a violation of law and right, and personal degradation."

They call upon the members of the profession in Ireland to make an immediate, vigorous, and combined effort to prevent the insulting proposition from becoming law. They affirm that this clause shows that the Scotch and Irish are regarded as of a lower type and caste than the English, inferior to them in blood and soul, and unworthy to be dealt with on equal principles. On the face of the case they seem to be right in protesting against these compulsory clauses. But there can be no question as to their being wrong in importing the old and childish doctrine of nationalities into the discussion of a question which no reasonable man can suppose to have been adjusted on that basis. A little temperate inquiry and discussion with the promoters of this measure would enlighten the protesters as to the motives of the clause, and help to the solution of their difficulties far more effectually than those pages of passionate declamation on a nonsensical hypothesis which appeals only to dormant national jealousies. Of course the warmth of feeling in Glasgow for the benefit of Ireland is explicable by reference to their own case; but really the Glasgow Faculty should not think so little of our Irish brethren as to suppose that they are only accessible to impulses of passion, and are not moved by reason. The "inferiority of race" is a piece of bunkum which should be reserved for the political platform. If Scotchmen, with canny caution, wish their Irish friends to fight the battle for them, they might pay them the compliment of supposing them to be sensible men, who can discuss any proposed amendment quietly and on its own merits. This little flourish looks like too obvious an attempt to take the readiest means of obtaining the use of the cat's paw.

CLASTIC ANATOMY.

THERE are a series of anatomical and physiological models in the French galleries of the International Exhibition which present features well worthy of notice. They include an extensive collection of models of the organs of men and animals, fishes and insects, which may easily be taken to pieces, and put together again, layer by layer, as in a veritable dissection. They are composed of a paste, which being run into moulds, receives from them the most delicate markings, and in drying acquires an elasticity and solidity which surpass those of wood. They have a great many advantages: amongst them, extreme durability and lightness; the possibility of removing successively one by one all the parts, as an able dissector would for demonstrating, and of replacing them with the same facility; the possibility of reproducing, in enormously enlarged proportions organs and details which could not be seen by the naked eye, or could not be demonstrated to a class. In our schools the use of these models might be adopted with the effects of abridging for the most industrious student the time employed for learning anatomy, and of diminishing the number of subjects requisite for dissections; for although dissection must always be quite indispensable, some unnecessary work may be saved if the students study first the forms and relations of the organs on pieces such as these, or use them to refresh their memory. In lecturing to a class on such parts as the internal ear, the lecturer will derive the most sensible aid from being able to show the very beautiful and greatly-enlarged models which are here displayed.

THE GREAT INTERNATIONAL EXHIBITION.

IV.

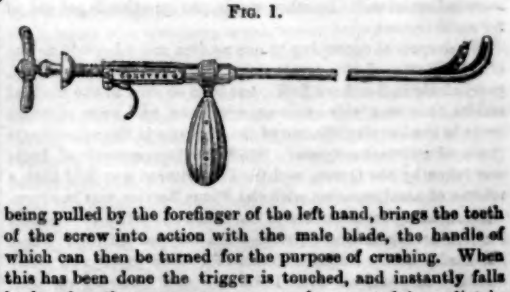
REPORT ON SURGICAL INSTRUMENTS.

THE juries are now hard at work in the various departments, and the surgical instruments jury has far advanced in the examination of the various pieces. Without drawing invidious comparisons between individuals or countries, it may with emphasis be said that among the instruments shown by the principal English makers are many which, for quality, shape, and workmanship, are not to be surpassed. Not only do all these instruments show that dazzling polish which the French have long since learned to imitate, and which they designated "*le beau poli*," or "*le poli Anglais*," but, as an eminent maker observed to us, it may be seen on inspection that this high polish serves, not to conceal bad material or workmanship, but to heighten and adorn excellence in both respects. In some of the cases a special oblation to the purposes of the Exhibition may be seen, in the magnificence of the carved ivory handles, gilded shanks, and even gilded blades, of the instruments. This magnificence commends itself to the eye rather than to the intellect; and although gilding finds its place in surgical instruments where acids or caustics would be likely to attack any less durable and precious material, yet where unnecessary, and introduced merely as an ornament, the eye of the true surgeon is more likely to be offended than pleased. The surgical eye looks to workmanlike qualities; and the glittering, highly-polished blade, the well-balanced handle and practical design, afford more satisfaction than the wealth of gold and ivory. We have seen a tracheotomy-case in which the knives are gilded. This is simply barbarous, and no surgeon could see with pleasure a good blade so spoiled. The object of the instrument-maker should be, to produce the best possible instrument at the lowest price. We are not sure that the prices of some of our London makers do not run considerably higher than those of the foreign makers; but skilled labour is so much better paid here, that this difference of price may be to a great extent unavoidable. For technical perfection our makers can still, we think, safely challenge the world. The cases of the great English makers display a series of instruments in which the most fastidious can hardly detect a fault as to workmanship, although the same cannot always be said as to design. Their instruments have not the same variety as the French, and are by no means so numerous, or, as a rule, so complicated. The cases of such makers as Charrière, Mathieu, and Lüer, are replete with striking novelties, which are not to be found in the English cases, while they also exhibit, as a rule, the highest merits of temper, solidity, and smoothness of finish. But this difference is rather due to that of the schools of surgery than to any other cause. Beautiful little instruments, such as the "Pince-érigne, Robert," of Mathieu, the self acting aneurism needle of Lüer, and the instruments for scarifying the urethra by Charrière, deserve to be studied by English surgeons, although not likely, we think, to be much used. The school of mechanical surgery seems to have made great strides, and while the extreme ability of the makers in carrying out the indications of the surgeons must excite admiration, it by no means follows that we shall become converts to that school.

To attempt a list of new instruments and modifications would be to write a catalogue, which would itself fill a volume. We can only refer to and illustrate some of the most practical.

One of the latest proceedings of surgery, and that in which the surgeon especially requires the aid of the mechanist, is lithotrity. The two names chiefly identified with lithotritic instruments in the past have been Charrière and Weiss. Both of these houses exhibit admirable instruments of their well-known models, Charrière showing his beautiful lithotrite with the broken screw movement, and Weiss adhering mainly to the old models of his house. Whicker and Blaise, Mathieu, and others, show beautiful instruments of these and other models. In this country the most experienced surgeons use at present for ordinary purposes the model of Charrière known as Civiale's instrument, while for particular cases they employ still the excellent models which the late Mr. Weiss introduced more than thirty years since. Coxeter shows an improved lithotrite, which is exhibited now for the first time. Lithotritists have always felt that the drawback in the use of the original screw lithotrite is the loss of time in unscrewing the instrument in order to open its jaws when it has been screwed down, and in the tendency of the stone to slip when seized. In Coxeter's modified lithotrite there is an alternation of sliding and screw action. The male blade slides with great ease to catch the stone; when seized, the trigger, (as shown in the engraving,)

FIG. 1.



being pulled by the forefinger of the left hand, brings the teeth of the screw into action with the male blade, the handle of which can then be turned for the purpose of crushing. When this has been done the trigger is touched, and instantly falls back, when the same manœuvres can be repeated immediately and *ad libitum*. Further, there is a small spring concealed at the end of the screw in the male blade, by means of which the stone is prevented from slipping out of the jaws while the trigger movements bring the screw teeth into position. The same maker has a scoop also on this principle, for the removal of detritus, which is an ounce lighter than Civiale's—a desideratum in regard to ease in quick manipulation. Weiss and Son show an improved form of lithotomy scoop (Fig. 2). It has a folding extremity, so that by depressing a lever jointed to the

handle the operator can curve the blade or scoop to any angle required, thus offering a much greater surface to the stone, and consequently increasing the facility of extraction. Whicker and Blaise, and Coxeter, both show a hollow sound, with blade to open, by which the bladder can be injected, the sounding performed, and the stone measured at once. A variety of instruments for lithotomy are to be seen, the case of Savigny possessing a most perfect historical series of the instruments which they have made for successive generations. There are some surgeons who still use the gorgets; but most employ scalpels of various shapes. The most remarkable modern instrument is one shown by Hilliard, of Glasgow, in which, by a mechanical contrivance, it is endeavoured to make a certainty of Buchanan's operation by articulating a cutting instrument to the handle of the sound when passed, so that being driven forward it must pierce the perineum in a right line and hit the groove. The principle is not new. This may be a very good instrument for surgeons who have all thumbs, but not for those who have four fingers. There are some beautiful specimens exhibited of Dupuytren's double lithotome for dividing the prostate bilaterally—an instrument which requires to be very perfectly made: that by Lüer is remarkable for an improvement which diminishes its size without affecting its utility. For crushing large stones which cannot be removed whole after lithotomy,—a circumstance which has more than once proved fatal in the practice of eminent surgeons,—Messrs. Weiss and Whicker and Blaise show two newly-devised instruments, both equally well made, but of which the latter seems the most powerful. For puncturing the bladder, Weiss and Son have, at the suggestion of Mr. Holt, modified the usual instrument by employing a flexible tube to be left in the rectum. They show also a new trocar for ovariotomy; the point of the trocar is hollow and sharpened like a tubular suture needle; it forms part of an inner tube, which slides within the canula, and has only to be withdrawn sufficiently to allow of its being covered by the canula. This is a convenient substitute for the old form of solid trocar and canula. Attached to the apparatus is an elastic tube, which conveys the fluid, and also acts as a syphon. This instrument will greatly facilitate cleanliness and rapidity in tapping. They have also an improved syringe and trocar for injecting ovarian cysts. Amongst trocars for other purposes the surgeon may notice those of Mathieu, in which the point is movable on the stalk, so that it can present at will the blunt or sharp extremity, and serve as probe or trocar in the method of Chassaignac, while it can be carried about conveniently. The French system of mounting a series of trocars with canulæ on one handle is extremely ingenious and serviceable.

Amongst the novelties in ophthalmic instruments shown by Messrs. Weiss and Son are—a hook spatula used by Mr. Streatfeild in operating for coreclisis; and a very pretty canalicular dilator made for Mr. Bowman, of which, as may be seen (Fig. 3), the action is most simple, the blades being dilated or extended in the direction of the dotted lines by depressing the lever on the handle.

FIG. 2.

One-third natural size.

FIG. 3.

CHEMICAL AND PHARMACEUTICAL PRODUCTS.

Having in our last number described the general character of the specimens exhibited in illustration of chemical and pharmaceutical processes and products, we proceed to refer more in detail to such as present any features of novelty, or in other respects appear to deserve particular notice.

With reference to the great staple chemical products, such as the mineral acids, the alkalies, &c., which are applied in chemical processes generally, it does not appear that any important improvements have been effected in their manufacture since the Exhibition of 1851, unless we include in this category oxalic acid, the production of which from sawdust instead of from sugar is certainly an important improvement. Oil of vitriol and the other mineral acids are still produced as they were in 1851. The process by which oil of vitriol is made, known as the English process, was improved in some of its details by French chemists, and especially by Gay-Lussac, who introduced the use of a chamber filled with coke wetted with sulphuric acid, as the last of the series of lead chambers through which the gases are conveyed, and from which the exhausted gases escape into the atmosphere. This arrangement prevents the loss of nitrous compounds, with which the air is too often contaminated in the neighbourhood of vitriol works, and its more general adoption will probably be suggested to manufacturers by the recent proceedings in Parliament bearing upon the subject. So likewise in the manufacture of soda by Leblanc's process, which is still the process of the great manufacturers, the use of the coke tower for absorbing the hydrochloric acid evolved in the decomposition of common salt with oil of vitriol, if not adopted from other motives, will no doubt be required by law. In other respects than these, however, there is room for improvement in the processes referred to, especially in the production of mineral acids. It is at present almost impossible to obtain any of these acids in a state of purity: thus, sulphuric and hydrochloric acids are never free from arsenic, and nitric acid is generally contaminated to some extent with sulphuric acid. These impurities, although they may exist only in minute quantities such as do not interfere with the general use of the acids, offer, nevertheless, a serious obstacle to their employment in particular cases; and the means of producing at moderate cost *pure* mineral acids is still a desideratum. It is to be hoped that at the next Exhibition such acids will be included among the products in this department.

In the manufacture of chemical products having special applications the present Exhibition affords some striking indications of progress. At the Exhibition of 1851, the products obtained by Mr. James Young in the distillation of Boghead

coal were shown as illustrations of a process the value of which had not then been fully proved. The immense consumption, since that time, of "paraffin oils" produced by Mr. Young's process leaves no doubt as to the importance of this manufacture. Mr. Young now exhibits not only the oils obtained by the distillation of coals—some of which oils are used for burning in lamps, and others for aiding in the lubrication of the endless variety of machinery by which the wealth of this country is extended,—but also a great block of beautifully white and pure solid paraffin, derived from the same source, and applicable for the construction of the most perfect description of candles. Mr. Young has fairly earned for himself the splendid fortune with which he has been rewarded, in a few years, for the introduction and successful application of his invention. As an inevitable result, many attempts have been made to obtain similar products by other processes, and from sources differing from those indicated in Mr. Young's patent; and the consequence has been that oils are sold to the public under the name of "paraffin oil" which are highly dangerous, on account of their great volatility and the inflammable character of the vapour evolved from them at comparatively low temperatures. Even Nature herself has stepped in to compete in supplying oils of this description, and at the present time some of our great seaports are inundated with cargoes (for which suitable store-rooms cannot be found) of oils resembling the paraffin oils, which in Canada and parts of the United States flow in constant springs from the ground. These rock oils, however, as they abound in highly volatile and inflammable constituents, are among the most dangerous of the substitutes for Young's paraffin oil, and they cannot be used with safety unless they are thoroughly freed from their most volatile ingredients.

There is another manufacture besides paraffin oils, which was first presented to the public at the Exhibition of 1851, and which is now again exhibited after a trial of eleven years. This is amorphous phosphorus, produced by subjecting ordinary phosphorus for many hours to a temperature of about 450° Fahr. in a vessel from which atmospheric air is excluded. The phosphorus, which was colourless and semi-transparent, becomes red and opaque, and in this state, although its composition is unaltered, its properties are very different from those of ordinary phosphorus. It is no longer the dangerously inflammable substance it was, nor is it luminous when exposed to the air in the dark. In appearance it resembles a piece of common red brick, and it may be wrapped in paper and carried in the pocket without risk. When rubbed, however, with chlorate of potash and some other substances, it ignites, and hence it was thought that much advantage would result from its introduction in the manufacture of phosphorus matches. In this respect the anticipations originally formed have not yet been fully realized; for although the manufacture is carried on to some extent by Messrs. Albright and Wilson, of Oldbury, near Birmingham, by whom Schrötter's process for its production was patented in this country, and who are the exhibitors now as they were in 1851, yet but little progress has been made in applying amorphous phosphorus in the manufacture of matches in this country. Better results have attended its application abroad, and matches are exhibited in some of the foreign departments made with amorphous phosphorus, which on account of their freedom from danger are the sort which alone is permitted to be kept in the Exhibition building. In the construction of these matches two separate mixtures are made, one containing the amorphous phosphorus, and the other the chlorate of potash; one is applied to the end of the match, and the other to the surface of the box, against which the match is to be rubbed. Until this friction takes place neither of the compositions is liable to become ignited from any slight cause.

But the most important manufacture of the sort under notice that has recently been introduced, is that of the new dyes which are now so extensively produced from coal-tar products. There is a great display of these dyes by English and also by foreign exhibitors. The discovery of them, which originated with a student in the laboratory of the Royal College of Chemistry, dates back only a few years, so that this is the first Exhibition in this country at which they have been shown. Mr. W. H. Perkin, a pupil of Dr. Hofmann, being engaged in experimenting with aniline,—a volatile base which may be obtained from coal-tar,—found that in acting on this substance with chromic acid a black-looking precipitate was formed which, dissolved in alcohol, gave a violet-coloured solution of great intensity, and, when properly purified, of great beauty. It was found that this colouring agent was in every way suited for the purposes of the dyer; that it communicated to silk and other fabrics the colour known as *mauve*, and that the colour thus produced was not easily affected by exposure to light, while the same colour produced by other means was extremely fugitive. The process for the production of colouring matter from aniline and allied bodies by the action of chromic acid was made the subject of a patent, and the chemical student was soon transformed into a manufacturer, whose successful undertaking is of on referred to in illustration of the practical advantages, even in a pecuniary point of view, which may result from the pursuit of scientific studies. Mr. Perkin's success induced other chemists to seek for new dyes from the same source, and several of these have succeeded. Thus, besides Mr. Perkin's dyes, we have those discovered by Dr. Price, Dr. Medlock, and others, which are known by the names of *rosine, fuchsine* or *Magenta, bleu de Paris*, &c. The *Magenta* dye, which is also called *rosaniline*, is exhibited by Messrs. Simpson, Maule, and Nicholson, who have a very beautiful crystallization of the acetate of rosaniline, in the form of a crown, which attracts a great deal of notice.

Passing from the class of chemical products which have special applications unconnected with medicine, we have next to notice general chemical products, many if not most of which are included among medicinal agents. What is there new or deserving of particular remark in this class? We shall here include in it those chemical products which are usually made by what are termed the manufacturers of fine chemicals. There are several subjects and substances to which we shall have occasion to direct attention here. In the first place, it is worthy of remark that the greater part of the specimens of the class now referred to, which are so tastefully exhibited by a large number of manufacturers, and form so prominent a feature in this part of the Exhibition, are intended for use in medicine. The importance of the application for which they are designed, and the necessity of having them in a state of considerable purity to render them fit for such application, have caused much attention to be directed to the best methods of manufacturing them, and a corresponding amount of excellence may be traced in the products. Take, for instance, the preparations of mercury, of iron, of antimony, iodine, bromine, &c.; and, again, the preparations of quinine, of morphine, strychnine, aconitine, and other vegetable alkaloids, which fill so many of the cases in the chemical section;—and what, we may ask, would have been the state of the manufacture of these substances had it not been for the importance of their applications in medicine? It must not, however, be supposed that the state in which the substances referred to are presented here—often in fine groups of crystals—is that in which they are usually met with in commerce; or, indeed, that they are any better, intrinsically, in this state than in that in which they more commonly occur. The tastefulness of the manner of displaying the articles may serve to attract observation, but should not be allowed to divert attention from the important qualities upon which their efficacy depends. As a general rule, well-defined crystalline form is a good indication of the definite state and freedom from material impurity of a chemical substance. Hence the regular cubical form of iodide and bromide of potassium, the characteristic form of the crystals of potassio-tartrate of antimony, the right prismatic form of the crystals of sulphate of magnesia, and the oblique prismatic form of those of sulphate of soda, may serve as guides to some extent in selecting these salts, as the presence of certain impurities would interfere with the crystallization of them in such definite forms. But there are many exceptions to this rule, and some salts crystallize not only more readily, but in better defined crystals, from impure than from pure solutions. Thus, for instance, carbonate of soda cannot be obtained in the fine, large, well-defined crystals that are exhibited in some of the cases from a pure solution of the salt; but if the solution contain sulphate of soda, as it usually does, the crystallization will take place readily, and the crystals, although not pure, will be large and well defined. The same thing is observed in the crystallization of other substances, such as Rochelle salt, tartaric acid, &c.

A case has recently been brought under our notice which appears to show that the crystalline condition of a body is not always indicative of its being in the state of greatest activity. Aconitine, the well known alkaloid obtained from monkshood, is one of the most powerful agents employed in medicine; and this alkaloid is usually supplied in the amorphous state. It may, however, be got in crystals; but it appears from some

experiments which have been made in Paris that the crystalline sort is much less active than the amorphous.

There is a fine specimen of aconitine in Mr. Morson's collection, which is white and amorphous—the state in which it is always supplied by Mr. Morson for use in medicine; and in this condition there are numerous statements on record to prove how powerful and efficacious a remedy it is. By the side of the amorphous specimen there is another in fine crystals, prepared from the same source by the same maker, who has a great reputation for the production of this powerful medicine in the highest state of purity. It would be very desirable that these two specimens should be fairly tried in comparison the one with the other.

It is generally considered that bodies in the crystalline state resist the action of chemical and physical agencies better than they do when not crystallized; but there is at least one exception to this, of which there are several well-marked illustrations among the chemical specimens: we refer to the specimens of calomel. In the sublimation of calomel, if the vapour be received in a vessel kept at such a temperature that the condensation takes place slowly, the sublimed product will assume a crystalline condition, more or less massive according to the manner of conducting the process; but if the vapour be quickly condensed by mixing it with the vapour of water or with large quantities of cold air, it will have no crystalline character, but will precipitate in the form of an amorphous powder. Calomel used to be always prepared by the first of these methods, and afterwards reduced to powder by rubbing it in a mortar to render it fit for use; it is now more generally prepared by the last of the above methods. Among the specimens in the collections of Messrs. Howard, of Messrs. Davy, Macmurdo, and Co., and of Messrs. May and Baker, calomel will be found both in the crystalline and in the amorphous pulverulent condition. It will be observed that all the crystalline calomel has become discoloured from exposure to the light, while the amorphous pulverulent sort has undergone no such change, nor will it after long-continued exposure. The blackening of the crystals is no doubt due to a chemical change, which is probably one of reduction; and we see that this occurs in the crystalline more than in the uncrystallized. Even when the crystallized calomel has been reduced to powder it does not retain its white appearance, as that which has never been crystallized does; and by this character we may distinguish the one from the other when in the state of powder. It is probable, too, that the therapeutic action of the two sorts of calomel is not precisely the same; as the one consists of little, broken, angular masses resulting from the disintegration of crystals, while the other is composed of spherical particles which have no angular points or asperities.

There are few or perhaps no chemical products used in medicine that are of more importance than those obtained from the Cinchona barks; and there is no chemical manufacture better illustrated in the Exhibition than is quinine, and the alkaloids allied to it. We refer especially to the illustrations given by Messrs. Howard and Sons, to which we briefly alluded in a previous notice. Among the specimens in this collection there are five species of the genus Cinchona shown in the living state in a Ward's case,—namely, Cinchona Peruviana, C. micrantha, and C. nitida, which yield the grey barks of commerce; C. succirubra, yielding the genuine red bark; and C. uritusinga, yielding the Loxa bark of La Condamine. Plates of numerous other species serve further to illustrate this remarkable family of plants, and the accompanying specimens of bark point out the sort which each species yields. The genuine red bark, which is particularly rich in alkaloids and not undeservedly celebrated by Dr. Saunders, is placed side by side with the spurious red bark, which, proceeding from another family of plants, is altogether deficient in medical properties, and yet succeeded in usurping the place of the true remedy. This is manifest from the specimens still remaining in the museum of Guy's Hospital. About ten of the species figured produce quinine in greater or less quantities, but almost always associated with other alkaloids. It is remarkable that the sort of bark to which tradition attaches the cure of the Countess of Chinchon, and the consequent celebrity of the remedy, as well as its name, should be especially rich in *cinchonidine*—an alkaloid which, there is some reason to suppose, will be found at least equal to quinine in efficacy as a medicinal agent, and that without exciting so much cerebral disturbance as accompanies the exhibition of the latter remedy. This is therefore a valuable medicine; but the same cannot be said of the product of about eight other species of cinchona, which yield barks containing only *aricine*—an alkaloid (of which a specimen is shown) of an exceedingly nauseous taste, and probably wholly to be rejected in medicine. Indeed, either the alkaloid or an accompanying resin seems to possess the properties of an emetic. Yet these barks are sold, as others, under the indiscriminate appellations of trade, and must in many instances deceive the hopes of those medical men who rely on Peruvian bark supplied by those who are unable to distinguish the good from the bad, or in whose eyes cheapness is the principal merit.

The Cinchona calisaya, the precious bark of Bolivia, is distinguished for the abundance of the quinine it yields; yet even here we find in addition the less-valued cinchonine and quinidine, and also cinchonidine.

The attention of the profession has been so much fixed upon quinine, that the medical effects of the other cinchona alkaloids which are exhibited in Messrs. Howard's collection have not been studied with the care they deserve. The sulphates of quinidine and cinchonidine were, we believe, first introduced into commerce by this firm, and they are well represented in this collection.

Correspondence.

"Audi alteram partem."

ON THE DIAGNOSIS OF JAUNDICE.

To the Editor of THE LANCET.

SIR,—In the report of my paper on the Pathology and Treatment of Jaundice, published in last's week's LANCET, it is stated that a simple mode of distinguishing between jaundice from suppression of the biliary function, and jaundice from the re-absorption of the secreted but retained bile, is "to add to about two drachms of urine half a drachm of strong sulphuric acid* and a fragment of loaf-sugar the size of a pea. If at the *time* of contact of the two liquids a scarlet or purple colour is produced, it proves that the acids of the bile are present, and the case may consequently be put down as one of jaundice from obstruction." Now it so happens that the reaction of the bile acids does not become manifest at the "time" of contact of the two liquids, but in a few minutes afterwards, and at the "line" of their contact. (The sulphuric acid must be slowly added to the urine, and in such a manner as will admit of its sinking to the bottom of the test-tube, and allowing the urine to float on its surface.) And although the mistaking the little word "time" for "line" is in itself but a trifle, as some of your readers may, perhaps, try the above simple means of distinguishing the different kinds of jaundice, I think this note is worthy of a place in THE LANCET, for it may be the means of preventing both failure and disappointment in the application of the test.

I am, Sir, yours, &c.,

GEORGE HARLEY, M.D.

Harley-street, Cavendish-square, May, 1862.

THE SCOTTISH LUNACY BILL.

To the Editor of THE LANCET.

SIR,—The arguments of your able leading article last week, on the Scottish Lunacy Bill, appeal to only one side of a great question. They are arguments against a meditated change personally injurious to two very estimable men—Drs. Browne and Coxe. Every one can enter into the writer's sympathy with them. But this is not the whole question. Is it, or is it not, a good arrangement to have Commissioners inspecting, reporting to themselves as a Board, and then using such powers as they possess to establish their own opinions and practices in preference to any others? This is not fair play. This cannot be for the public good and the advancement of scientific knowledge. This is centralization. There is no appeal for the asylums—no representation of their due independence.

In looking after the interests of two worthy individuals, you cannot mean to overlook the public good. Your strongest argument, viz., that of your quotation from Lord Shaftesbury, may be to other minds and experiences the strongest evidence that things should not be, whether in Scotland or in England, as they are. You probably know not of the struggle for power, of the spirit of dictation and over-reaching, and of the questionable practices with the insane, exercised and urged by our English Commissioners of late years. I beg you to believe that it is the real interests of the asylums that need representation and protection at our Lunacy Board. We want in it either men without crotchets of their own to push, or a counterbalancing party sufficient to restrain those who have them.

* Pettenkoir's test.

Lord Shaftesbury recognises naturally, the "great principle," of the value of which he speaks so highly, because it is the very one to increase power in the hands of the Commission. It is, therefore, agreeable to that body; but, in direct proportion may it be oppressive to others, and those others the patients for whose sake and benefit alone the Commission has any right to exist at all!

It is a fair question, What *is* for the benefit of the lunatic? It is a scientific question, to be answered only by time, research, and freedom of practice.

With a question of such a nature awaiting a full solution, is it a public advantage to have a Board to dogmatize, to insist beyond their right, and, generally, to oppress if they are not met with a subservient acquiescence in all their views? I speak of the influence of the Commission on county asylums, and I say with all the force, feeble as it must be, of my single judgment, that that influence is bad, narrow, and oppressive—hurtful in every way, unnecessary, and not the sort of thing to be protected by a feeling in favour of individual interests, when once the public eye in any part of the kingdom is open to its defects, and striving to get them amended.

Cannot this question be argued on pure grounds, and cannot Drs. Browne and Coxe be compensated? If individual interests are to stop salutary reforms, the obstacles will be for ever existing to the continual denial of the public good.

Let me beg of you to regard this important question on grounds wider than those which appear, hitherto, to have bounded your view of it. If Scotland cry out, *must* it be only to save her pockets? Is it not possible she may have felt injuriously the overweening authority of a bureau, and that she may discern all the eventual mischief and stagnation which may be predicted of that sort of dominion?

Give Scotland credit for sense and far-sight, as well as parsimony, and believe that not a few in England, also, would be able to view with sincere approbation a similar prospect of change and improvement in the mode of administering the affairs of the pauper lunatic.

I am, Sir, your faithful servant,
JAMES E. HUXLEY, M.D.

County Lunatic Asylum, Maidstone, May 27, 1862.

VACCINATION.

To the Editor of THE LANCET.

SIR,—Just at the present time, when the working of the Vaccination Act has proved such a failure, any suggestion, however slight, may be of service.

The private practitioner (who has quite enough to do gratis now) declines in any way to carry out the present Act, excepting in those cases where he can charge half-a crown and upwards. Now it strikes me that if Government would ensure two shillings to all qualified practitioners for every successful case, three months would not pass over without every child in the kingdom under three months old being vaccinated. Only call in the assistance of the whole profession at a reasonable remuneration, and the work would soon be done, and done well too. I am, Sir, yours truly,

JOHN T. WALLER, M.R.C.S. Eng.

Flegg Burgh, Norfolk, May, 1862.

CONSULTATIONS WITH HOMŒOPATHS.

To the Editor of THE LANCET.

SIR,—My attention has been directed to a letter, signed "Inquirer," in your journal of the 17th inst. I felt surprised you should insert such a communication under an anonymous signature. If your correspondent, instead of crediting reports, will make a distinct and positive charge, and have the manliness, or honesty, to attach his real name to it, I will afford him all the information he seeks. As to his threat at the conclusion, I despise it nearly as much as I do a person who has not courage to make his own name as public as the one he seeks to injure.

I am, Sir, your obedient servant,

Piccadilly, Manchester, May, 1862. CHARLES CLAY, M.D.

*** Dr. Clay appears to be ignorant of our regulations respecting the publication of *anonymous* communications. Such communications, unless duly authenticated, are not allowed to appear in our columns.—ED. L.

CLAUSE XL. OF THE MEDICAL ACT.

To the Editor of THE LANCET.

SIR,—Will you allow me to draw the attention of your readers to the proposed amendment of Clause 40 of the Medical Act, which simply forbids a person using the title of Physician, &c. I can find nothing in this clause as amended, nor in any other clause of the Medical Act, forbidding a person to practise as a physician, &c. Any person may practise both surgery and medicine without any qualification whatever, if he has sense enough *not* to assume a title nor pretend to any qualification. This is a great failure and an evil that should be remedied, and might be done by the change or the addition of a sentence in the 40th clause as amended.

I am, Sir, your obedient servant,

Bromsgrove, May, 1862. R. PROSSER, L.R.C.P. Edin.

UNIVERSITY OF ST. ANDREWS.

To the Editor of THE LANCET.

SIR,—I should esteem it a favour if you would insert the following in THE LANCET, for the benefit of the sixty-three successful candidates at the May examination for the St. Andrews degree. I am, Sir, yours obediently,

"THE GOVERNOR."

To the M.D.s of St. Andrews created May, 1862.

I wrote to Dr. A. Wood, who set the questions on Practice of Medicine, asking him to inform me what was the answer to question No. 6—A woman, aged fifty-five, &c. His reply was, "You will find the case in Spillan's Andral's Pathology, among the cases of diseases of the stomach."

I have referred to the work, p. 811, and find—Case 3: Rheumatic affection, at first; after some days, sudden disappearance of articular pain, succeeded by intense pain of the epigastrium; continuance of the latter, and of fever for forty days; vomiting only during the last few days; delirium towards the termination; tongue at first white, then red and dry, and subsequently diphtheritic.

Post-mortem.—"Pharynx and œsophagus healthy; mucous membrane of the stomach, on its two aspects, of a bright-red colour, and softened, and also towards the great cul-de-sac; greyish mammillary appearance of this membrane towards the pylorus; slate-coloured tint of duodenum, owing to the blackish colour of its villi. The same tint was found on the upper third of jejunum; nothing else remarked."

This is a French case. No wonder English students could not answer it. Some of the examiners could not solve the question, but supposed it to be retrocedent rheumatism to the "heart."

PARISIAN MEDICAL INTELLIGENCE.

(FROM OUR SPECIAL CORRESPONDENT.)

I PAID a visit to the Hôtel Dieu yesterday morning, and was never on any previous occasion so much impressed by the manifest unhealthiness of the old building. The walls of the staircase are blackened with smoke, the carbonaceous deposit of which contains, doubtless, a full proportion of such organic material as, according to the excellent report of M. Chalvet, may be scraped off in handfuls from the plaster in certain hospitals, and which, in the case of the Salle St. Augustin, at St. Louis, amounted to thirty-six per cent. of the whole weight removed by the brush. A few francs' worth of whitewash might satisfactorily settle the question of embellishment, and possibly also have some beneficial influence upon an epidemic of puerperal fever at present raging in the wards. In the *service* of M. Trousseau I saw one woman *in extremis*, and I was shown, under the microscope, a specimen of her blood, which contained a quantity of pus-cells. The air of the ward was generally hot and oppressive, and the aspect of the patients, with few exceptions, pasty and cachectic.

Your readers may possibly remember that, in an account which I gave you of the strange malady so often miscalled paralysis, locomotory ataxy, it was stated that up to that time no coincident pathological lesion had been recognised in any portion of the nervous system. M. Duchenne (de Boulogne) now informs me that, from more recent researches, he is induced to connect this malady with certain changes in the nutri-

tion of the posterior roots of the spinal nerves, the microscope having revealed their atrophic condition, and a deficiency of the nerve-tubes in this region.

A somewhat bitter correspondence between M. Ricord and M. Viennois of Lyons is at present occupying public attention. The latter having criticized pretty freely the two clinical lectures delivered by the great syphilograph at the Hôtel Dieu in January last, M. Ricord has thought proper to expostulate with his former pupil upon the tone and purport of his observations. M. Viennois' answer is far from pacific, and will most probably provoke a sharp retort; but as there exists without doubt, under the surface, some personal question, it is to be hoped that matters may go no further.

Several of the medical journals quote with astonishment a fact recently announced in an English paper, with reference to the amount of syphilis existing in the British army. According to the latter authority, the statistics of the year 1859 prove that out of every 1000 soldiers in England, 422 had been under treatment in hospital for syphilis; whilst the proportion for Paris is quoted at 34, and for Brussels at 67. This calculation, which would tend to establish the ratio of frequency in France, Belgium, and England as 1, 2, and 12 for each respective country, appears to be especially contested by the *Presse Médicale Belge*, and an appeal is made to the statistical researches of M. Vleminckx, Inspector-General of Military Hygiene, in order to prove that the venereal disease is far more rare in the Belgian army than in those of either France or England.

The Academy of Sciences has just received an official report of the analysis of the water from the Artesian well at Passy, made by MM. Poggiale and Lambert. The following are the chief conclusions of this report:—1st. That the water from this source bears a great resemblance to that of the well at Grenelle. 2ndly. That it contains no oxygen, and is alkaline in reaction, but contains a smaller proportion of calcareous and magnesian salts than good drinking water. 3rdly. That its high temperature, strong taste, absence of air, and the limited proportion of carbonic acid it contains, are all obstacles to its use for drinking purposes. 4thly. That for public uses, such as the watering of vegetables, supply of steam-boilers, and washing, this water is preferable to that of most springs or rivers.

Paris, May 27th, 1862.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 22nd inst.:—

Ballard, William Waddell, Tonbridge.
Barker, Edward Robert, Benamaris.
Bartlett, Joseph James Henry, Ladbroke-square, Notting-hill.
Bennett, Charles, Shifnall, Shropshire.
Coatin, John Quick, Kimbolton, Hunts.
Dawson, Richard, Brighton.
Downes, James Badger, Handsworth, Staffordshire.
Gargory, Caleb, Birmingham.
Hayward, James, Trowbridge, Wilts.
Jones, Robert, M.D., Llanrwst, North Wales.
Langford, Charles Phineas, Hingham, Norfolk.
Martin, Thomas, M.D., Little Hutton, Lancashire.
Murdoch, William, Rotherhithe.
Newbold, Edward Thomas, Macclesfield.
Newton, George, Ashton-under-Lyne.
Watson, John, Manchester.

At the same meeting of the Court, Mr. EDWARD PHELAN FORREST, of H.M.'s Ship *Royal Adelaide*, Devonport, passed his examination for Naval Surgeon. This gentleman had previously been admitted a Member of the College, his diploma bearing date October 26th, 1855.

The following gentlemen were admitted Members on the 23rd inst.:—

Adye, William, M.D., Bradford-on-Avon.
Davidson, Thomas, B.A., Shaftesbury House, Bayswater.
Lait, William, Brookfield Lodge, Victoria-park.
Lomax, John Evan, Penybont, Radnorshire.
Young, Joseph, Sandwich, Kent.

ERRATUM.—The name of WALTER GEORGE SHEPPARD, of Dorchester, was inadvertently omitted from the list of those admitted Members on the 20th inst.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 22nd inst.:—

Clindening, William Talbot, Adelaide, Australia.
Dry, Thomas, Guy's Hospital.
Eagles, Woodfield, Aylesbury.
Smart, Bath Charles, Manchester.
Trevor, James Ebenezer, St. Mary's Hospital.

The following gentlemen also on the same day passed their first examination:—

Medwin, A. George, Guy's Hospital.
Osmond, Thomas, St. Bartholomew's Hospital.

The names of the following gentlemen should have been inserted in the list of successful candidates at the recent examination in Arts on the 25th and 26th of April:—

Mason, George. Webster, William.

UNIVERSITY OF GLASGOW.—The following is a list of Degrees conferred between the 1st of May, 1861, and May 1st, 1862:—

DOCTORS OF MEDICINE:—

Adams, Wm. S., Scotland.
Allan, James A., Scotland.
Allan, Robt. L., Scotland.
Allison, Alex., Scotland.
Black, Donald C., Scotland.
Blair, David, Scotland.
Campbell, John, Scotland.
Campbell, Dugald, Scotland.
Calhoun, Geo. V., Canada.
Colquhoun, Alex. E., Scotland.
Constable, John, Scotland.
Cumming, Wm., Scotland.
Currie, Ronald, Scotland.
Dick, James, Scotland.
Dinwoodie, Wm., Scotland.
Eastes, John A., Scotland.
Faithe, James, Scotland.
Fraser, John B., Nova Scotia.
Gladman, Henry R. A., England.
Gordon, Wm. L., Scotland.
Hall, Richard, Scotland.
Henderson, James O., Scotland.
Henry, James, Ireland.
Hunter, John B. Scotland.
Hunter, Wm. M., Scotland.
Irvine, Geo. N., M.A., Scotland.
Jackson, Daniel, Scotland.
Jamieson, James, Scotland.
Leslie, David, Ireland.
Livingstone, John, Scotland.
Lyle, Robert, Ireland.
Macdonald, John, Scotland.
Mackenzie, John, Scotland.
Middleton, Wm., Ireland.
M'Nab, Robert, Scotland.
Parsons, Francis H., England.
Paterson, Wm., Scotland.
Ramsay, Robert H., Scotland.
Simpson, Thos., Scotland.
Slater, John T., England.
Walker, Matthew R., Scotland.
Whamond, Wm., Scotland.

MASTERS IN SURGERY:—

Adams, Wm. S., Scotland.
Agnew, David, Scotland.
Allan, James A., Scotland.
Allan, Robt. L., Scotland.
Colquhoun, Alex. E., Scotland.
Cumming, Wm., Scotland.
Currie, Ronald, Scotland.
Dinwoodie, Wm., Scotland.
Fraser, John B., Nova Scotia.
Gladman, Henry R. A., England.
Hall, Richard, Scotland.
Hunter, John B., Scotland.
Hunter, Wm. M., Scotland.
Kerr, Norman, M.D., Scotland.
Livingstone, John, Scotland.
Middleton, Wm., Ireland.
M'Donald, Alex., M.D., Scotland.
Murray, John, M.D., Scotland.
Parsons, Francis H., England.
Ramsay, Robt. H., Scotland.
Slater, John T., England.
Walker, Matthew R., Scotland.

THE SKULL OF CONFUCIUS, the Chinese philosopher, who died in the year 376 B.C., holds a place in the International Exhibition.

SOIREE OF THE PRESIDENT OF THE COLLEGE OF PHYSICIANS.—The President of the College of Physicians has issued cards for a reception on Monday evening, June 9th, at the College in Pall Mall East.

THE ROYAL ZOOLOGICAL SOCIETY.—This Society have conferred their silver medal on Dr. George Bennett of Sidney, New South Wales, in acknowledgment of that gentleman's numerous donations of animals to the menageric.

HYDROPHOBIA.—Some melancholy cases of hydrophobia have lately excited considerable alarm in France. The death of the lady of an eminent physician has been recorded in the *Gazette des Hôpitaux*.

INFANTICIDE.—The frequency of infanticide in the parish of Marylebone has induced the Home Office to offer a reward of £100 for the detection of several of the guilty parties.

MR. PEABODY'S GIFT TO THE POOR OF LONDON.—On Thursday, the 22nd inst., the Court of Common Council voted the freedom of the City to Mr. Peabody, to be presented in a gold box of the value of one hundred guineas.

DEATH OF DR. BENEDICT, OF BRESLAU.—Dr. T. W. Benedict, professor at the University of Breslau, who has largely contributed to medical literature, has just died at the age of seventy-seven.

ST. THOMAS'S HOSPITAL.—A meeting of an interesting character was held at the Bridge House Hotel on Wednesday, the 28th inst., on the occasion of the presentation of a testimonial to Mr. Teniswood, the late librarian of the above hospital. The chair was filled by Dr. Clapton.

FEVER AMONG THE RICH.—Mr. N. Rigby, bricklayer, has published a small volume on the necessity of preventing any communication between cisterns used for domestic purposes, and those in connexion with water-closets. His work also contains many excellent practical suggestions for securing the purity of air in dwellings.

MUNIFICENT BEQUEST.—The late Mr. A. Pirie, merchant, of Dundee, who died last week, has bequeathed £2000 to the Royal Infirmary of that place. The Right Hon. and Rev. Lord Bayning has presented thirty guineas to the Norwich Hospital. Lady Bayning has also given five pounds.

PETRIFIED ABORIGINE.—Amongst the novelties announced to be exhibited in London during this season is a petrified "aborigine." This extraordinary specimen of petrifaction was discovered by Mr. J. Craig in a stalactite cave in South Australia.

CLINICAL INSTRUCTION IN SPAIN.—Dr. Drumen, already professor of Clinical Medicine in Madrid, has been appointed General Director of the clinical teaching in the Faculty of Madrid. The professor has been requested, in virtue of this appointment, to propose such reforms in this branch of public instruction as may seem to him desirable.

ARMY MEDICAL OFFICERS IN ITALY.—It is stated by the *Gazette des Hôpitaux*, that the medical men of the Italian army can never rise to a comparatively higher rank than that of major, even when retiring from the service; whilst military medical officers are, in other countries, gradually taking a very satisfactory standing.

OXFORD. — The Regius Professor of Medicine (Dr. Acland) has given notice that the next examination for the degree of Bachelor of Medicine will commence on Monday, the 23rd of June, at half-past nine A.M. Candidates are required to send certificates of the date of their matriculation and of their course of medical study to the Professor on or before the 5th of June.

HOSPITAL BUILDING IN FRANCE.—The discussion which lately took place on this subject in the Academy of Medicine of Paris, has borne its fruits: the Home Secretary has just appointed a committee to inquire into the best mode of constructing hospitals and asylums for the aged and infirm. The committee are expected to send in drawings illustrative of their views.

CONFLAGRATION AT QUEEN'S COLLEGE, CORK.—The western wing of this college was completely destroyed by fire on Thursday, the 15th inst. The destroyed wing contained the entire medical apartments, and everything is lost, including the late Dr. Todd's valuable collection and the museum. It is estimated that £12 000 will not cover the damage. The building, however, is insured.

THE RADCLIFFE INFIRMARY, OXFORD.—The fountain in St. Giles's, Oxford, with a statue of the Prince Consort, substituted for King Alfred, has been given up; and at a public meeting it was resolved to add a new wing to the Radcliffe Infirmary, to be called the Albert Wing. There appears to be £3000 in hand for the purpose, and half as much again will be required, the raising of which will constitute the memorial.

ROYAL MEDICAL BENEVOLENT COLLEGE.—The following are the successful candidates at the election on the 22nd inst.:—*Pensioners:* George King, 9281 votes; Elizabeth Jenner, 9090; Jane Carter, 5884.—*Foundation Scholars:* Theophilus G. Vawdrey, 7508 votes; Archibald Wm. Menzies, 7032; Donald M'Phee Lee, 6786; George Hatch, 6503; Ernest John Crouch, 4915.

DEATH OF THE HEAD PHYSICIAN OF THE FRENCH EXPEDITIONARY CORPS IN MEXICO.—M. Ludger Lallemand, who held the above appointment, has just died of yellow fever, and is very much regretted by his numerous friends. It is said that three other medical officers belonging to the army and navy of the French forces, as also a pharmacien, have died of the same disease.

SCIENTIFIC CONGRESS IN ITALY.—A committee has been formed in Naples to promote the revival of scientific congresses in Italy. The members of the committee have put themselves in communication with all the scientific bodies of the kingdom, and propose to hold the tenth meeting at Bologna, where such meeting would have taken place some time ago, had it not been for the interference of the Papal government, at that time in possession of the city.

COLLEGIATE ELECTIONS.—The annual circulars to the Fellows of the Royal College of Surgeons of England have just been issued, from which we learn that the election of three Fellows into the Council will take place on the 3rd of July next, in the room of Sir Benjamin Brodie, Bart., a life member, resigned; Mr. Edward Stanley, a life member, deceased; and of Mr. Edward Cock, going out in rotation. The advertisement announcing the above appeared in the *London Gazette* of Tuesday last, and also in *The Times* and *Daily News*; and those Fellows desirous of a seat in the Council, or of assisting their friends to one, should be reminded of the following bye-law relating to the election and admission of members of Council, viz.:—

Every Fellow desirous of a seat in the Council, shall, within ten days from the publication of the *London Gazette*, in which the day of meeting for the election shall be announced, transmit or deliver to the secretary of the College or person acting for him, a notice and declaration signed by himself in the following terms:—

I, A. B., of C., Fellow of the Royal College of Surgeons of England, do hereby declare that I am a candidate for a seat in the Council of the said College; that I am in the *bonâ fide* practice of the profession of a Surgeon, and that I do not practise as an apothecary.

Together with a nomination signed by six Fellows of the College in the following terms, viz.:—

We, the undersigned Fellows of the Royal College of Surgeons of England, do hereby certify that A. B., of C., is in our estimation a fit and proper person to be a member of the Council of the said College; and we do hereby nominate him a candidate for a seat in the said Council.

And also a certificate signed by three Fellows, in the following terms, viz.:—

We, the undersigned Fellows of the Royal College of Surgeons of England, do hereby certify, on our own personal knowledge, that A. B., of C., is in the *bonâ fide* practice of the profession of a Surgeon, and that he does not practise as an apothecary.

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.—The officers of the Public Health Department are as follows:—President: Mr. Wm. Fairbairn, F.R.S., President of the British Association for the Advancement of Science. Vice-Presidents: Dr. Watson, President of the Royal College of Physicians; Dr. Farr, Assistant Registrar-General; and Mr. Simon, Officer of Health to the Privy Council. Secretaries: Dr. Lankester, Dr. Markham, Dr. Milroy, and Mr. Rawlinson, C.E. A large number of valuable papers have been obtained, and if the medical profession gives adequate support, the Department will be most successful. There will be an evening discussion at Burlington House, "On the Effect of Occupations on Health."

ST. BARTHOLOMEW'S HOSPITAL.—College Examinations, Winter Session, 1861-62:—Senior scholar, J. Bowater Vernon; Junior scholar, C. A. Hingston; Wix prize, H. Mackintosh; Hichens prize, C. A. Hingston; Bentley prize, J. Bowater Vernon; President's prize, J. Bowater Vernon.—*Practical Anatomy*—Senior: 1, S. Hall; 2, J. Reynolds; 3, F. Buckle; 4, W. Jones; 5, T. Brewer; 6, W. C. Kiernander; J. A. Bloxam and J. L. Currie, equal; 9, T. Wolferstan; 10, M. Shaw; 11, E. Turner; 12, C. Spurway; F. Wickstead and G. H. Orton, equal. Junior: 1, F. W. Richards; 2, C. D. Peerless; 3, T. Roberts; 4, G. A. Coates; T. Powdrell and S. H. Simpson, equal; J. T. Evans and A. S. May, equal; 9, A. H. Brewer.

CHOLERA IN INDIA.—Sir Hugh Rose has issued a general order on the subject of cholera among the troops. Last year nearly a whole European regiment were swept away in the Punjab, and a committee was appointed to report on the calamity. Their report has not yet been given in, but it is understood the great remedy they insist on, and prove by figures, is the removal of a regiment attacked by cholera to camp. The Commander-in-Chief's order directs:—

"On the outbreak of cholera in an epidemic form, either in neighbouring villages or cantonments, officers commanding stations will be prepared to move the troops into the selected camps on the shortest notice.

"As soon as any case of cholera is reported in the station the troops will be moved into camp, and no unfavourable condition of the weather is to prevent this movement being carried out.

"Should cholera follow the troops, they will be moved short distances at right angles, if possible, to the prevalent wind and track of the disease, every second or third day, care being taken that the marches in no way fatigue the men.

"The breaking out of cholera in a regiment or at a station is on no account to cause the suspension of the soldier's daily amusements and occupations, care being taken that the latter

in no way fatigue them; and commanding officers will use their utmost exertions to develop any recreation or employment of which the effect is to keep the men's minds in their normal state.

"It often occurs that soldiers, on a visitation of cholera, indulge in the use of spirituous liquors, in the belief that they are a preventive against the disease. The medical authorities unanimously condemn this supposed remedy as a certain promoter of the disease. Commanding officers are therefore enjoined to use their utmost endeavours to prevent so baneful a practice.

"The troops are not to return to cantonments until all traces of the cholera shall have disappeared from the neighbourhood, either among the European or native population. The barracks and hospitals will be thoroughly fumigated, the walls whitewashed, and the doors and window-frames painted before they are reoccupied.

"The men will be supplied with hot tea and coffee before going out in the morning; they will invariably wear flannel belts, and all precautions must be taken to prevent their remaining in wet or damp clothes.

"The Commander-in-Chief feels persuaded that all officers share his feeling, that when cholera breaks out in a station they should be with their regiments and at their posts.

"E. B. JOHNSON, Lieutenant-Colonel,
"Officiating Adjutant-General of the Army."

*** These instructions are very good as far as they go, but they do not go far enough. Whenever cholera threatens to visit a barrack or cantonment, the state of the water supply, and the presence in the neighbourhood of deposits of organic matter in a decomposing state should be carefully inquired into. The relation of such local conditions to cholera has been abundantly shown in India as well as in England, and no mere cleanliness of the barrack-rooms would prove effectual if either the air or the water should happen to be contaminated with the products of decomposition.—ED. L.

THE MEDICAL PROFESSION AND LIFE INSURANCE OFFICES.—An important meeting of medical practitioners was held on the 14th inst., at the Sunderland Infirmary. After an interesting discussion, the following resolutions were proposed and carried:—

Moved by Mr. Barron, and seconded by Mr. Welford,—"That this meeting, after full consideration as to the proper course to pursue toward such Life Assurance Offices as insure the lives of parties without the usual preliminary medical examination, is of opinion that it is not consistent with the dignity and welfare of the profession, nor with the interest and well-being of the public, to sign any paper or grant any certificate to such societies respecting the death or previous illness of any deceased policy-holder; and, being of opinion that such societies are based upon objectionable and deceptive principles, hereby determine to refuse to fill up or grant any such paper or certificate."

Moved by Dr. Bowman, and seconded by Mr. Taylor,—"That the medical attendant be at liberty to furnish to the office, in answer to their application, a copy of the certificate of the cause of death, if he think well of doing so."

LIQUID FIRE.—A very curious and interesting experiment has just been made at Fort St. Nicholas, at Marseilles, with a new inflammable liquid invented by a Paris chemist. The bottle containing the liquid was broken by a musket shot, and it burned everything which had been placed near it. A second experiment was made the following day in presence of the General commanding the artillery. Nothing could be more satisfactory than the result. Large heaps of timber were consumed, and the earth was calcined to the depth of a foot. This liquid, which resembles the Greek fire, is sufficiently powerful when enclosed in a cannon ball to set fire to an enemy's fleet.

EXTRAORDINARY LONGEVITY.—Two deaths of centenarians are chronicled by the *Northern Ensign*. The former is that of Donald Tarrel, a pauper of Wick parish, but residing in the estate of Forse, parish of Latheron, of which parish he was a native, for some years. Tarrel had reached the great age of 104 years. The other was a John Murray, a native of the parish of Dornoch, but a pauper of the parish of Latheron. He died at Boultach, Latheronwheel, at the still greater age of 107 years. It is somewhat singular that both died on the same day—Friday last, their united ages being 211 years! Both were strong and healthy men, and were in their better days engaged in out-door employment.

NEW CORRESPONDING MEMBER OF THE PARIS ACADEMY OF MEDICINE.—Three candidates were lately proposed for the title of National Corresponding Member of the Academy of Medicine of Paris, viz., M. Goyrand, an eminent surgeon of Aix, M. Stoltz, one of the leading accoucheurs of Eastern France, and M. Mirault, (of Angers), well known as a very successful surgeon. M. Goyrand had 44 votes; M. Stoltz, 16; and M. Mirault, 6. The first of these was, therefore, proclaimed corresponding member, which title his two opponents will, very probably, eventually obtain also whenever vacancies occur.

THE KING OF THE BELGIANS.—On Sunday last M. Civiale performed, for the fourth time, an operation for stone on King Leopold. This operation, which had been postponed in consequence of the nervous state of the august patient, was perfectly successful. In less than three minutes the able surgeon removed or destroyed two large fragments of stone, and the terrible pain which the King had long endured ceased at once, as if by enchantment. He still remains at Laecken by way of precaution, although it is hoped that M. Civiale's services will not again be required.

ALLEGED POISONING OF A WHOLE FAMILY BY CHEESE.—An investigation took place at the White Horse Tavern, Liverpool-road, Islington, on Wednesday, touching the deaths of Jane Sutton, aged forty, and Charles Sutton, aged six, mother and son, whose deaths were alleged to have been caused by eating poisoned cheese. On Saturday week the deceased and some others of the family were taken ill, after eating some bread and cheese. They were all removed to the Fever Hospital, where the two on whom the inquest was held expired. The others recovered. One of the sons had been collecting bones in New-street, thrown up by the men employed in digging for the Metropolitan Underground Railway, but they were not kept in the house. The bones came from slaughter-houses which had been formerly in the locality, and some of the witnesses said they were very filthy. On a post-mortem examination masses of undigested cheese were found in the stomachs of the deceased, and the medical evidence was in effect that death had resulted from inflammation of the stomach and intestines from some decomposing animal matter. The inquiry was adjourned for an analysis of the remaining portion of the cheese.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, MAY 24TH.—The deaths registered in London in the week that ended last Saturday were 1209. Fatal cases of measles were more numerous than they had been in the preceding weeks, while typhus exhibited a decrease. Of 46 deaths from measles, 32 occurred in the Central and East districts; none in the Western districts. There were 4 in the sub-district of Goswell-street, 4 in that of St. Botolph, 4 in the sub-district of Haggerstone West. Four children died of scarlatina in the City-road sub-district; 6 in the two sub-districts of Lambeth Church; 2 children died of the same disease in a family at 6, Market-street, St. James's-square; a boy, aged 2 years, of "cholera infantum (5 days)," at Jennings'-buildings, Kensington. Seven deaths from typhus occurred in the London Fever Hospital; 11 in the district of Shoreditch. Ten persons, of whom 9 were children, died by syphilis.

Births last week were—Boys, 951; girls, 968. Total, 1919.

Obituary.

EDWARD STANLEY, F.R.S.

ON Saturday last, May 24th, Mr. Stanley died quite suddenly from sanguineous apoplexy, in Henry VIII. ward, St. Bartholomew's Hospital, at about half-past three P.M. The deceased gentleman, who held the honorary post of Consulting Surgeon to the hospital, after many years' active service, drove down from his residence in Brook-street to witness the operations. He saluted his numerous friends with his usual urbanity and kindliness, and exhibited his customary interest in the various proceedings which took place in the operating theatre. At about a quarter past three, he, Mr. Lawrence, Mr. Wormald, and Mr. Holmes Coote, accompanied by Mr. Moncrieff Arnott, who happened to be visiting the hospital, withdrew from the theatre to examine some cases of interest. In Henry VIII. ward Mr. Stanley examined with great attention a lad with

diseased knee (a patient of Mr. Lawrence). He said, after careful investigation, "I think, Mr. Lawrence, that if all remedies have failed for many months in your hands, the case would be one favourable for resection." He spoke clearly, and evidently in the full possession of all his faculties. A moment afterwards he staggered against a bed, and sank, supported by those around him, on the floor. Mr. Wormald and Mr. Coote raised him on a bed, and untied his neckcloth. The latter gentleman, turning to Mr. Lawrence, who stood anxiously by, observed, "The pulse is ceasing to beat;" when Mr. Stanley uttered some expression which induced Mr. Wormald to ask him how he felt. Mr. Stanley replied, with a benevolent smile upon his countenance, "I am quite well, Wormald; I never felt better in my life: it's only stomach." A deep flush mounted to his face; it passed away in a few seconds, leaving the features composed, without a struggle, in death. He breathed heavily for some short time, but never recovered consciousness. It is needless to add that everything was done that medical skill could effect. His death-bed was speedily surrounded by Mr. Paget, Dr. Martin, Mr. Holden, and others of his colleagues and friends, who were deeply attached to him.

Thus died Edward Stanley, at the age of seventy-one, not the subject of failing faculties or of lingering disease, but, like a good knight, in harness, on the field of his labours: his last words and thoughts for the good of suffering humanity; his last act for the credit of the hospital, which he loved so well. The body was removed to the house of the treasurer, Mr. Foster White, whose kindness to the bereaved family was beyond expression. The event has cast a great gloom over the hospital; yet there prevails but one opinion,—namely, that if he could have chosen his end, this was the death he would have wished to die.

A retrospect of the life of Mr. Stanley offers a useful lesson of success obtained by perseverance against difficulties, and of honours acquired by industry and rectitude.

Short in stature, and at first sight unprepossessing in appearance; slow in framing his ideas and in drawing conclusions; naturally rather timid than self-reliant; without the advantages of great family interest or of early wealth,—Mr. Stanley succeeded in becoming one of the leading surgeons of the day, having held during his lifetime nearly every office which might become the object of reasonable ambition.

As was the case with the late Dr. Baly, Mr. Stanley's father was in trade; but young Stanley having shown an early preference for medicine, was apprenticed to Mr. Ramsden, one of the surgeons of St. Bartholomew's Hospital. His work in the dissecting-rooms and in the museum brought him under the notice of Mr. Abernethy, whose penetration saw in him many valuable points of character. From the museum he was selected to be one of the demonstrators of anatomy; and in 1826 he was appointed lecturer on anatomy and physiology, in conjunction with Mr. Abernethy. In 1829 he was appointed sole lecturer, Mr. Abernethy having resigned; and he faithfully discharged these duties until 1843, when he resigned them to Mr. Paget.

The office of assistant-surgeon was honorary in those days: he was elected in 1816. In 1838 he became surgeon. This office he held for twenty-three years, when he retired, and was appointed honorary consulting surgeon,—being the first medical officer who voluntarily resigned his duties upon principle, while in good health and in the full possession of his faculties.

In 1843 he became president of the Royal Medical and Chirurgical Society. He was twice elected president of the College of Surgeons; and was most indefatigable in his duties as member of the Council of the Court of Examiners at the College. He also discharged the duties of Hunterian lecturer. In 1858 he was appointed Surgeon Extraordinary to the Queen.

Few surgeons have had a mind more richly stored with facts and precedents. His clinical lectures were excellent, and the lessons they conveyed were often imperishable. Yet, strange to say, he did not always profit by his own advice, but would commit the very error he taught others to avoid. His unbiassed opinion was respected by all, and of all persons he was the last to know its true value. As a man he was humane, considerate, and kind, even to a fault. His devotion to his patients seemed the absorbing feeling of his mind. In no position did he shine more than in the operating theatre, under circumstances of grave and unexpected difficulty. He never lost his self-possession, and his courage always mounted to the emergency. He was sometimes slow, but never unsafe. He preserved under these circumstances the same order and method that he had displayed in his teaching.

MEDICAL VACANCIES.

AN Assistant Medical Officer, is wanted for the Worcester County and City Lunatic Asylum.

The appointment of Dr. John Thomas Arlidge, as Senior Physician to the North Staffordshire Infirmary, will cause a vacancy in the office of Physician to the West of London Hospital and Dispensary, Broadway, Hammersmith.

Dr. Thomas Robert Tatham has resigned as Medical Officer for the Northern Division of the Township of Huddersfield.

MEDICAL APPOINTMENTS.

THE Treasurer and Governors of St. Bartholomew's Hospital, have, on the recommendation of the Medical Staff, appointed Mr. Holmes Coote Lecturer on Surgery at the Hospital, conjointly with Mr. Lawrence.

Mr. William O'Kelly has been elected Honorary Surgeon to the Chester General Infirmary, vice Dr. Essex Bowen, resigned; and Mr. Thomas Jones has been elected Assistant House-Surgeon, vice Dr. W. W. Duggan resigned.

Mr. James Wookey has been appointed Resident Surgeon to the Dispensary, Weston super-Mare, vice Mr. John Henry Love, resigned.

Dr. John Jaap has been elected Medical Officer to the Workhouse and the Eastchurch District of the Sheppey Union, vice Mr. John Wrixon, resigned.

Dr. William Robinson has been appointed one of the public Vaccinators for Gateshead.

Mr. William Edward Burton has been elected Medical Officer for District No. 1, and the Limehouse Establishment of the Stepney Union, Middlesex, vice Mr. Frederick John Robinson, resigned.

Births, Marriages, and Deaths.

BIRTHS.

On the 19th ult., at Potter-street, Worksop, the wife of E. Bennett, Esq., M.R.C.S., &c., of a son.

On the 20th inst., at Cherrybank Cottage, Dreghorn, Ayrshire, the wife of John Caldwell, L.R.C.P. Edin., of a daughter.

On the 24th inst., at Quarry-street, Guildford, the wife of John Meaburn Bright, Esq., M.R.C.S., of a daughter.

On the 25th inst., at Wellington House, Wellington-road, St. John's-wood, London, the wife of David J. Allen, M.D., of a son.

On the 26th inst., at Bishopsgate-street Without, the wife of Robert Fowler, M.D., prematurely, of a son, who survived its birth only a few hours.

MARRIAGES.

On the 12th ult., at Belgaum, Bombay Presidency, John T. Sanderson, M.D., son of Henry Sanderson, Esq., Musselburgh, to Annie, eldest daughter of Stiven Godden, Esq.

On the 21st inst., at Clifton, Rayner W. Batten, M.D., of Gloucester, to Marion, third daughter of Solomon Leonard, Esq., of Buckingham Villas, Clifton.

On the 28th inst., at the Parish Church, Stockport, Henry John Yeld, Esq., M.R.C.S., of Sunderland, to Louisa, daughter of the late John Collier Vaudrey, Esq., of Stockport.

DEATHS.

At Nantclwyd, Ruthin, T. Prythereh, L.R.C.P. Edin.

On the 1st March, suddenly, at Hobart Town, Tasmania, Richard Bright, M.D., third son of the late Rev. John Bright, of Skellington Hall, Leicestershire, aged 57.

On the 13th ult., at Peshawur, Punjaub, India, William Tyrell, eldest son of James Tyrell Carter Ross, Esq., Bengal Medical Staff, aged 2 years and 6 months.

On the 13th inst., at Longton, Staffordshire, Stephen Ingram, Esq., M.R.C.S., aged 73.

On the 17th inst., at Wittington, near Hereford, John Sherborne Palmer, M.D., of Weobly, Herefordshire, aged 59.

On the 23rd inst., at his residence, Hill-grove House, Wells, Somerset, Joseph William Moss, M.D., aged 50.

On the 24th inst., at Great Yarmouth, Norfolk, George William Paternoster, Esq., M.R.C.S., of the Old Kent-road, aged 39.

On the 25th inst., at New-terrace, Camberwell, George Augustus Blake, M.R.C.S., aged 37.

On the 25th inst., at Glasgow, Charles William Heycock, only child of Richard Domenichetti, M.D., Surgeon 75th Regiment, aged 14 months.

On the 26th inst., at Minto-street, Edinburgh, Jane Fairley, wife of George Cowan, late of Calcutta.

BOOKS ETC. RECEIVED.

Dr. Tilt on Uterine Inflammation.
Dr. Lancereaux de la Thrombose et de l'Embolie Cérébrales.
Deaconesses, by the Rev. Dr. Howson.
Dr. Frerichs on Diseases of the Liver. Vol. II.
Dr. Pavy on Diabetes.
Mr. H. Smith on Hæmorrhoids.
Military System of Gymnastic Exercises.
Dr. Martyn on Hospitals.
Dr. Phœbus der Typische Frühsommer Katarrh.
Dr. Cutter on Veratrum Viride as a Therapeutical Agent.

Medical Diary of the Week.

MONDAY, JUNE 2

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.
ROYAL INSTITUTION. — 2 P.M. General Monthly Meeting.
ODONTOLOGICAL SOCIETY OF LONDON.—8 P.M.

TUESDAY, JUNE 3

GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Rev. G. Butler, "On the Art of the 14th Century."
ETHNOLOGICAL SOCIETY.—8 P.M. Mr. Spencer St. John, "On the Wild Tribes of Borneo."—Mr. Wm. Spottiswoode, "On the Wild Tribes of Kurdistan."—Dr. Edward Pick, "On the Law of Growth as discovered by Dr. Libarzik."—A short Vocabulary collected in Australia by Mr. Walcott. Communicated by his Grace the Duke of Newcastle.

WEDNESDAY, JUNE 4

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 3 P.M.
OBSTETRICAL SOCIETY OF LONDON. — 8 P.M. Dr. Tyler Smith, "Four additional Cases of Ovariotomy."—Dr. Tilbury Fox, "On the Vessels concerned in the Production of Phlegmasia Dolens."—Also papers by Dr. Hodges, Mr. Grace, Dr. Cooper Rose, and Mr. Langmore.
GEOLOGICAL SOCIETY OF LONDON.—8 P.M.

THURSDAY, JUNE 5

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 1 P.M.
LONDON HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M.
LONDON SURGICAL HOME.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION. — 3 P.M. Dr. Lyon Playfair, "On the Progress of Chemical Arts (1851-62)."

FRIDAY, JUNE 6

WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.
ROYAL INSTITUTION. — 8 P.M. Professor Tyndall, "On Force."

SATURDAY, JUNE 7

ST. THOMAS'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Anderson, "On Agricultural Chemistry."

To Correspondents.

THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.

Dr. P. Allen (Yealand Conyers) requests us to state that three days after he addressed us the letter on the question of paying life offices, he received a communication from the Actuary of the "Atlas Office," enclosing a fee of one guinea. The Atlas Company, therefore, must be added to our list of paying offices. The letter of Dr. Allen was by a mistake on our part dated May instead of March.

Chemicus.—The almost universality of the presence of arsenic is becoming established every day. Amongst the bodies containing it, common salt may be mentioned.

A Student, (Bartholomew's.)—The operation was performed by Mr. Liston on several occasions.

M.R.C.S.—Any offence committed previous to the passing of the Medical Act is not punishable under that statute. The construction of the fortieth clause is so faulty, and its meaning so obscure, that it is difficult to say what constitutes an offence under the Act.

A Constant Reader, (Wolverhampton.)—What proof can be adduced that Mr. Pope was privy to the insertion of the paragraph?

A CANDIDATE FOR THE CIVIL PENSION LIST.

To the Editor of THE LANCET.

SIR,—Fully agreeing with every remark in your last week's annotation respecting the medical candidate for the Civil Pension List, I only regret that you have not devoted more space to a full consideration of the way in which the medical profession is treated by the State, and fairly illustrated the constant and growing demand for gratuitous medical services. Will the lawyers or the clergymen thus systematically serve the public for nothing? I trow not.

One act of injustice always serves to be the parent of more, and thus the rights of the University of St. Andrews having been wantonly sacrificed, Dr. Day next suffers. As one for whom I have a high feeling of respect, I shall be heartily pleased if the proposed application to the Prime Minister be successful. The result of the proceeding will at any rate give us some idea how we stand at Court.

I am, Sir, yours obediently,

May, 1862. BETA

A Caution.—Members of the profession should be on their guard with reference to sending any money to advertisers who make promises of recommending nervous patients to reside in the house of a medical man. We have reason to believe that a system of fraud has been carried on to a considerable extent by means of such advertisements. The advertiser requests that money may be sent to him to pay his travelling expenses, in order to judge for himself whether the house is fitted for the patient he proposes to recommend. It is perhaps needless to say that there is never any patient forthcoming.

D. D.—Dr., or J. M., M.D.

C. C.—A disinfecting and a deodorizing agent are two very different things. Of the latter we have many; but of the former it is extremely doubtful if we possess even one.

A Hater of Humbug must be more definite in his statements, and must send his name and address.

An Exhibitor.—We are unable to assist our correspondent. Apply to the Commissioners.

MERCURY IN SYPHILIS.

To the Editor of THE LANCET.

SIR,—If the combativeness of Dr. Inglis were less rude and coarse—if he would throw away the rusty claymore he fights with, and assume the polished rapier, he would do more credit to the cause he espouses, and extinguish any regret that I am again obliged to enter the lists with him. I forbear to notice ridiculous charges of ignorance and low motives of action, and pass to the only question which is of any interest to your readers—Is the mercurial vapour-bath a cure for syphilis? Shall we take the three cases quoted by Dr. Inglis as demonstrations of that fact?

The first case, James S——, is vaguely described as having contracted syphilis, and on three several occasions to have undergone treatment, "with little or no ultimate benefit." A node on the tibia, constant pain down the anterior aspect of the leg, with pain over the whole side and posterior part of the cranium, were the symptoms to be treated. Here was periostitis certainly, and it may be conceded that it was syphilitic periostitis. This patient took a mercurial vapour-bath—amount of mercury used not stated—every night for three weeks, with *only the slightest softness of the gums*. This affection of the gums, of course, indicated the same constitutional disturbance that would have been produced by the internal administration of the drug. Besides the mercurial bath, *large doses* of the iodide of potassium were given internally, and an ointment containing the iodides of potassium and ammonium was applied to the node. Quinine and iron were then administered, and "he has remained in the best of health for six months." Six months! *Risum teneatis!* ye syphilographers, who know so well that six years would be a not immoderate time to wait for a confirmation strong of the ultimate cure. But what will logicians say to the deduction that the bath was the means of cure, when that remedy *par excellence* for periostitis, iodide of potassium, was given in large doses at the same time, and when finally those loyal supporters of the constitution, quinine and iron, were also called to the rescue?

The second case, John J——, had taken blue-pill for three months, and was in a pitiable state, with a fissured tongue and weak stomach. Here is a case in illustration of the proverb, "Fas est ab hoste doceri." This is the kind of case I wish to diminish, if not altogether to put a stop to, by showing that syphilis may be cured without mercury, and without the miserable results which so frequently attend its administration. "A complete cure was effected by the bath." Whether there was any "softness of the gums" in this case, or for how long a time the complete cure has lasted, are not considered matters of sufficient importance to be mentioned.

The third case, William L——, had also been *salivated for syphilis without benefit*. His general health was injured by the process. Iodide of potassium and arsenic for two months produced very little improvement, and then the vapour-bath was used with "astonishing success." "The case has remained permanent." The complaint appears to have consisted of "flashes of light passing before his eyes, with muscæ volitantes, the pupils being much dilated." With the statement here given, it is utterly impossible to concede that syphilis had anything to do with the case, and we can only vaguely suggest that the original salivation was the cause of the cerebral disturbance. Is it at all possible that those insignificant drugs, quinine and iron, were given also in this case, or that some good generous port wine formed any part of the dietary? How long the permanent cure has lasted in this case is of no importance, as it is to be hoped there was no syphilis to return.

Alas for the reputation of the mercurial vapour-bath, if these were the kind of cases which supported its claims upon our attention! But I am glad to repeat the statement already made in my small work, that as an external application, exerting no influence upon the whole constitution, mercury in various forms is most valuable in syphilitic psoriasis and lepra, and especially alopecia. I find the red and white precipitate ointments act very efficiently when the eruption is limited, and when it covers the whole body we use the mercurial vapour-bath at the Royal Free Hospital with decided benefit. Even there, with good nurses and the best mechanical contrivances, it nevertheless sometimes happens that the patients become salivated even by one bath, and much prostration has resulted. To guard myself, however, from misconception, I must state that I use these external mercurial applications solely as cutaneous excitants, and regard any constitutional results arising therefrom as a misfortune to be sedulously avoided.

In private practice, the persons who come under treatment are generally too much occupied to devote so much time as the bath requires, and they are likewise too much interested in keeping the matter secret to permit of an arrangement for this proceeding in their own homes. These reasons would not, however, be permitted to prevail against the use of the bath in private as well as in public practice if the bath were that all-important remedy it is unwisely suggested to be.

Sir, I have already trespassed too much upon your space, and must not therefore venture to attempt an epitome of anti-mercurial opinions, founded on an experience of nearly twenty years in the ever overflowing wards of the Royal Free Hospital—an hospital second only to St. Bartholomew's, I believe, for its opportunities of studying this disease. But if the observation of many thousand cases there seen, and of the treatment of those cases with mercury in all forms, and without mercury—if an anxious study of the work done by all the distinguished labourers in this branch of pathology in past and present times, give no claim to the possession and expression of opinions through the usual medium, then it would be a curious matter to know what are the necessary qualifications for writing upon any question of practice.

I hope not to have to tax your courtesy any more upon this subject, and remain,

Your obedient servant,

WARDEN COOKE, M.R.C.S.

Upper Berkeley-street, Portman-square, May, 1862.

F. C. S.—The first enactment for the care of lunatics in England was the Vagrant Act, passed in 1744, which authorized two justices to order any furious or dangerous lunatic to be locked up, and if necessary *chained*. On the 1st of January, 1860, the number of pauper insane patients in England amounted to 31,543, of whom 16,201 were provided for in the county asylums, 1145 in hospitals or licensed houses, 8219 in workhouses, and the remainder were lodged with friends or elsewhere.

A Hypochondriac.—The disease is entirely imaginary. Our young friend should *consult* Mr. John Parry, at the Gallery of Illustration, when his melancholy would soon vanish.

H. G. W.—We think he is entitled to fees in each case, but not to expenses beyond the longest time he attends.

THE AWARD OF THE ARBITRATORS IN THE CASE OF DR. STEWART AND MR. I. B. BROWN.

To the Editor of THE LANCET.

SIR,—Sir Chas. Locock and myself having made our award on the controversy between Dr. Stewart and Mr. I. B. Brown, which we agreed to investigate on the condition that both parties should be bound by our decision, we accompanied that award by the expression of our opinion that it was undesirable that any further publicity should be given to the unhappy dispute. Finding, however, that in THE LANCET of May 10, under the head of "Notices to Correspondents," there has appeared a very imperfect and unfair version of our judgment, we think it due to ourselves, as well as to the parties to the dispute, that our award should now be published *in extenso*. I beg, therefore, to enclose you a copy of the award, and request the favour of its insertion, together with this note, in the forthcoming number of your journal.

I am, Sir, (on behalf of Sir C. Locock and myself,) your obedient servant,
Finsbury-square, May, 1862. JAS. RIDDON BENNETT, M.D.

"We, the undersigned, having consented to investigate and give our joint opinion on a controversy between Dr. Alexander Patrick Stewart and Mr. Isaac Baker Brown, connected with their attendance upon a child of Lord —— in April, 1861, have met twice, and gone through carefully all the correspondence and other documents which have been transmitted to us. We did not find it necessary or desirable to have any personal examination of the respective parties themselves, believing that it would have tended more to embarrass than assist our decision.

"We consider that we are not called upon at all to interfere with or comment upon the quarrel between Dr. Stewart and his relations, Lord and Lady ——, but to confine ourselves to the injuries of which the respective parties complain as between themselves.

"Mr. Brown declares that he had found in the course of last autumn that some medical men had declined to meet him on account of accusations which Dr. Stewart had made of his unprofessional conduct when he had met him at Lord —— in April, 1861, in attending a child with scarlatina.

"On being applied to, Dr. Stewart justified his accusations by repeating certain words which he affirmed Mr. Brown had used on that occasion—viz., 'Your daughter has not twelve hours to live, unless some prompt measures are taken,' which words *Dr.* Stewart maintains bore the imputation that the child had fallen into danger through his neglect, the consequences of which Mr. Brown would if possible repair. Dr. Stewart also declares that both Lord and Lady —— understood the words in that or an equivalent sense.

"In a correspondence which ensued between Lord ——, Dr. Stewart, and Mr. Brown, the accuracy of these words or expressions was denied by Lord ——, and not admitted by Mr. Brown, and at the close of the correspondence, Dr. Stewart insists very strongly on the unjust and injurious treatment he himself had experienced in having been virtually charged by Lord —— and Mr. Brown with falsehood, calumny, and ungentlemanlike conduct.

"The question then is divided into two parts—whether Mr. Brown's professional conduct when attending Lord ——'s child justified Dr. Stewart in giving such a report of it to others as to induce them to decline meeting Mr. Brown in consultation; and 2ndly, whether Dr. Stewart can be fairly charged with falsehood, calumny, and ungentlemanlike conduct.

"Our opinion, however, is more easily formed by considering the two questions together, as they so entirely relate to the same circumstances.

"In respect to Dr. Stewart's veracity, we do not for a moment question it. The exact words used on the night of the 27th of April were more likely to have been accurately remembered by him a few *days* afterwards than by either Lord —— or Mr. Brown six or seven *months* afterwards; and in a letter written by Lady —— on the 3rd of May, only *six days* afterwards, she quotes Mr. Brown's remarks in terms which fully confirm Dr. Stewart's version of the words—'That unless immediate measures were taken, he (Mr. Brown) did not think she had twelve hours to live.' It is to our view evident, then, that words were used to that effect.

"Dr. Stewart states that he makes no complaint of Mr. Brown having deprived him of the confidence of Lord and Lady ——, for he considers the very fact of their sending for Mr. Brown at all proved that that confidence had already gone; nor does he complain of Mr. Brown depriving him of the patient, as he himself insisted on giving up the patient, and being relieved from all further responsibility; but he complains that the phrase in question indicated that the child had been brought to such a state of imminent peril by his previous neglect or wrong treatment.

"To come to the facts as related by Dr. Stewart himself. After seeing the patient, Dr. Stewart and Mr. Brown retired to another room to talk over the case. Mr. Brown's first words were, 'that child will kick,' showing at once that, whether right or wrong, he considered the child in imminent danger. Dr. Stewart replied that, though the case of course was serious, he did not think it so bad as that. That Dr. Stewart must have thought the case very serious was evident from his having ordered half a glass of wine every hour, and having prepared Lady —— to expect that it was likely that it might be necessary to administer nourishment by the means of enemata, implying that the child might be unable to swallow. Mr. Brown having his own notions of the best treatment of scarlatina, as published by him several years before, of course proposed his own treatment to be followed, having equally of course the most confidence in it. Dr. Stewart also had his own notions, the result of his own extensive experience, and had up to that time carried them out as far as he was concerned, though it appears they had not been efficiently carried out during his absence. Dr. Stewart, however, did not object to the change of treatment; but he declined to have any further responsibility, on account of his feeling that the very fact of Mr. Brown having been summoned proved that the parents had not sufficient confidence in him.

"We are not called upon to give any opinion as to which treatment was the best. Both might have been equally good. But it is evident by what conversation took place when the two gentlemen were alone that Mr. Brown *bonâ fide* thought the child in much greater danger than Dr. Stewart did, and proposed his own peculiar plans as those in which alone he had any hopes of the child's recovery.

"If Dr. Stewart objected to the plans, the time for stating his objections would have been when he and Mr. Brown were alone together.

"On returning to the room where Lord and Lady —— were, it would appear that Mr. Brown announced his own impressions strongly as a reason for the treatment he wished at once to adopt. We must assume that, though after an interval of seven months Lord —— and Mr. Brown may have forgotten the exact words, yet words to that effect were really used. But we cannot see that such a phrase, even the identical words stated by Dr. Stewart, necessarily implied that Dr. Stewart had previously neglected the child, or treated her incorrectly. We see no reason to believe that Mr. Brown meant to imply either the one or the other.

"Dr. Stewart describes the overwhelming astonishment and dismay which the announcement of Mr. Brown produced on the parents, and explains that the reason why he did not at once protest against Mr. Brown's unfavourable prognosis was 'out of regard to the feelings of Lord and Lady ——.' It may be inquired whether it would not have been more comforting and cheering to the afflicted parents if Dr. Stewart had at once stated that he had a more favourable view of the case, and that he had already told Mr. Brown so in the next room.

"We acquit Mr. Brown of any idea of blaming Dr. Stewart's previous treatment by the expressions he used, even if we should admit that such expressions were indiscreet.* If there were any neglect, it was on the part of the parents in not having carried out Dr. Stewart's directions. Whether Mr. Brown was right or wrong in the view he took, we must presume that he acted *bonâ fide*, because he had stated the same view in a very colloquial phrase in the next room. We acquit Dr. Stewart of any want of strict veracity. Any difference of statements on other matters may fairly have arisen without any want of truth on either side; for how few persons describe the same event or the same conversation in the same aspect!

"We think that it is incumbent on Mr. Brown to write an assurance that he disclaims any impeachment of Dr. Stewart's veracity.

"We also are of opinion that Dr. Stewart is bound to assure any of his friends or colleagues to whom he has made any representations on the subject, that we, the referees, think that he has no sufficient reason to accuse Mr. Brown of unprofessional conduct, and that he has no right after the event to comment injuriously upon any behaviour which he allowed to pass at the time without objection.

"We are decidedly of opinion that it will be far wiser and better that nothing connected with this unhappy misunderstanding should be made public by forwarding any notice of it to any of the journals. At present the knowledge of it is limited to a very small circle, and it should not proceed further.

"CHARLES LOCOCK.
"London, April 30, 1862." "JAS. RIDDON BENNETT.

* It may probably seem to most persons superfluous to say that by this paragraph we intend decidedly to imply that, in our opinion, the expressions used by Mr. Brown *were* indiscreet. The passage, however, has been criticized as equivocal.—C. L., J. R. B.

*** If the reader will compare the notice which appeared in THE LANCET of the 10th inst. with the document above, he will be in a position to determine how far our remarks are either "imperfect" or "unfair." The arbitrators withheld their judgment from publication, but on what grounds we are at a loss to discover. The subject had become the common talk of the profession, and was acting injuriously to both the gentlemen concerned. If the award of the arbitrators was not to be made public, the arbitration might just as well never have taken place. The "notice" at all events has produced one good effect: the publication of the judgment in full.—ED. L.

Tyro.—"The Threshold of Chemistry," by C. H. Heaton, F.C.S., will be found by our correspondent to suit his purpose. It is a good introduction for beginners who cannot afford to incur much expense when commencing their chemical studies.

M. M.—The "remedy" has been tried at several of the metropolitan hospitals, and wholly failed.

Ozon.—The disease probably arose from some cause independent of infection. There are many such cases, and are produced by a former disease.

POOR-LAW MEDICAL REFORM.

To the Editor of THE LANCET.

SIR,—Is it not a pity that two gentlemen, each endeavouring to support a cause, should be going just the right way to ruin it? as Messrs. Griffin and Fowler are in respect to the Poor-law Medical Reform. "Between the two stools," &c., is an old adage, applicable to the present subject, and represents a position best avoided by unanimity. It is an unfortunate but established fact that the medical profession is a divided body, and it is a great misfortune in the Poor-law Reform matter that a *fowler* has risen up, who is endeavouring to stultify the plans of Mr. Griffin, who has worked for his brethren so ably and so long. If Dr. Fowler really has it in his heart to serve his professional brothers who hold Poor-law appointments, I respectfully suggest to him to do so with Mr. Griffin, and by no means against him.

I am, Sir, yours obediently,
May, 1862. A LOOKER-ON.

Mr. W. Gray.—The new clause will only prevent the assumption of titles by unqualified persons.

Incertus.—Both are allowed to style themselves "Dr."

F.—Mr. Wm. Bowman.

Mr. M'Whinnie's paper shall, if possible, appear next week.

Omega.—We cannot notice the matter. Such conduct should be brought before a magistrate.

GUY'S HOSPITAL BIENNIAL DINNER.

To the Editor of THE LANCET.

SIR,—Will you permit me to inquire, through the medium of your columns, why the biennial dinner of the gentlemen educated at Guy's Hospital has not taken place this year? Meetings of this kind ought not to be allowed to drop, as they tend to keep up old friendships and early reminiscences.

I remain, Sir, yours, &c.,
May, 1862. D. G. M.

Enquirer.—The new substance, "tellurium-methyl," was discovered by Dr. Max Heren. It is said that if a small quantity of it be allowed to get upon the finger, it soon communicates a smell to the whole body, and in a few days becomes perceptible in the breath. The odour is so permanent that the unlucky operator is shut out from society for several months. Such is the *on dit* at least.

NEW REMEDIES—PODOPHYLLIN.

To the Editor of THE LANCET.

SIR,—Dr. Hynes is entitled to thanks for the trouble he has taken in laying before the profession the results of his successful practice. The cases, however, published by him in your number of the 10th instant, as testimonials to the value of podophyllin, are unsatisfactory, that drug having been given in combination with so many others, and more particularly with calomel. The question to be solved is, Can we find a medicine equal to mercury in cases where that drug has been considered indispensable, and without its injurious consequences? From the various statements in your columns, and from my own experience, I believe that such a substitute has been found in podophyllin. Moreover, it is eminently successful where mercury is inadmissible. Sceptical of the encomiums passed upon it, yet trusting to the judgment exercised in selecting matter worthy of publication in THE LANCET, I determined to test first its physiological properties on myself, and next its therapeutic action on my patients. With the former it is not my intention now to trouble you. In illustration of the latter I send you the following cases for publication:—

J. A——, otherwise in good health, has suffered for the last four years from secondary syphilis. The symptoms have disappeared for a short time only, under the use of bichloride of mercury and iodide of potassium.

On Feb. 20th, when I first saw him, he was suffering from conjunctivitis, three secondary ulcers on the glans penis, and an eruption on the thighs and chest. Ordered, podophyllin, one grain; extract of cannabis indica, two grains. Make into six pills: one to be taken thrice a day.

March 2nd.—Conjunctivitis abating; ulcers rapidly healing; eruption fading.

6th.—Conjunctivitis well; ulcers nearly so; eruption less distinct. To continue the pills, which were operating from five to six times a day, without griping or any inconvenience.

10th.—Ulcers healed; eruption scarcely perceptible. Discontinue pills, which were now operating from six to eight times a day.

In a few days he again called upon me, perfectly well. The bowels, however, still moved from four to six times a day. Curious to know how long the effects of the podophyllin would continue after its use had been discontinued, I desired him to call upon me when the bowels had resumed their normal state.

On the 26th, the motions were reduced to two per diem.

How valuable must be the prolonged action of this drug in cases of habitual constipation, and how different its effects from all other aperients!

F. W——, aged thirty-two, artist, suffered many years ago from an attack of jaundice. Five years ago he contracted ague in Paris, since which time he has never been well. Is subject to fainting fits, in which he thinks he should die unless relieved by stimulants, hot bottles to the feet, &c. Frequently suffers from a feeling of weight on the top of his head, after which he falls down as if felled by a blow. Has been under the care of several eminent medical men, with only slight temporary benefit. Has taken iron, quinine, &c., but no course of aperients.

March 31st.—Found him in bed, with flushed face, anxious countenance, excited manner, and great hesitation in speech; muscular twitchings in arms and legs; numbness in left side of face, with mouth drawn to that side; no yellowness of skin; conjunctivæ blanched; odour of breath foul; tongue furred in centre, edges dark, congested; lips and gums much congested, purple; appetite bad; bowels irregular; respiratory and urinary symptoms normal; on palpation, heart-beat imperceptible, sounds weak but regular; unusual prominence of ensiform cartilage and false ribs on left side, beyond which the spleen projected one inch. Ordered podophyllin and extract of cannabis indica, of each one grain. After the pill operates, to take ten drops of the muriated tincture of iron thrice a day.

April 1st.—Pill operated well, bringing away an enormous amount of hardened fæces. Continue the iron.

3rd.—Found him sitting up in bed, feeling much better. To take each night at bedtime a pill containing podophyllin and extract of cannabis indica, of each half a grain; continue the iron.

8th.—Had an ague fit. To take sulphate of quinine, two grains, in dilute sulphuric acid, every four hours; continue podophyllin; omit the iron.

9th.—No return of ague; bowels acting very freely; much better; tongue cleaning. Discontinue quinine and podophyllin; resume the iron.

12th.—Left side of face has resumed its normal appearance, and numbness gone; the right side, however, is now slightly affected. Resume podophyllin; increase the iron to fifteen drops thrice a day.

14th.—Up and about his room; spleen on a level with false ribs; aguish symptoms returning. Resume quinine; omit other medicines.

With occasional relapses, and under a treatment varied according to symptoms, but with the persistent use of podophyllin, this man is now well, following his usual avocations, and he tells me better than ever he was.

This case is instructive in many ways. In the first place, it teaches us never to give up a case, however desperate. This man had been told by his former medical advisers that his case was hopeless, and when I saw him he believed every day must be his last. In the next place, it shows us how utterly useless are iron and quinine in these cases of enlarged spleen without a preliminary and continued administration of aperients, and I think it also shows us that there is not a more valuable drug in that class than podophyllin.

I remain, Sir, yours, &c.,
Warrington-terrace, Maida-vale, May, 1862. E. S. SISSON, M.D.

To the Editor of THE LANCET.

SIR,—Permit me to lay before you my experience of the new remedy, podophyllin, which deservedly is at present attracting so much attention. In your impression of the 10th instant appeared a long letter on the subject from Dr. Hynes, of Nottingham, which I have perused with not a little interest. While very satisfactory results have certainly followed upon his exhibition of this drug, as evinced in the several cases he reports, it would appear to me that he has not given it a fair trial; for he has been in the habit of administering it in combination with other powerful agents, so as to render it a matter of serious uncertainty how much of the success may justly be attributable to the remedy in question. A favourite formula of his, for instance, is the following:—"Extract of conium, extract of cannabis indica, of each half a drachm; podophyllin, calomel, of each *one* scruple; ipecacuanha powder, six grains; oil of juniper, twenty drops. Make into twenty-four pills: two to be taken every night and morning." Also the following mixture:—"Compound decoction of sarsaparilla, one pint; extract of taraxacum, two drachms: two tablespoonfuls to be taken *every* six hours." Now, I would merely ask, did the successful results depend, *imprimis*, upon the podophyllin, or upon the calomel and ipecacuanha, or upon the felicitous compounding of the whole?

For my own part I have prescribed podophyllin in over fifty cases, simply by itself in one-grain and half-grain doses, and this, I am pleased to say, with excellent and unmistakeable effect. To me its cholagogue properties appear much to exceed those of calomel and the other mercurial preparations, without at the same time any of their disadvantages. Where a torpid condition of the liver really exists, its eliminative action is very marked; while, on the other hand, it exerts no influence whatever in the absence of congestion of that organ. The two following cases will attest the efficacy of this now popular remedy, and are fair examples of many others in my experience:—

Mr. H—— applied to me, suffering from a dull pain and weight in the hepatic region, pains between the shoulders, constipated condition of bowels, furred and coated tongue, skin dry, and, along with conjunctivæ, of a yellowish tinge, loss of appetite, and general lassitude. I first ordered him calomel, five grains; extract of colocynth, six grains; to be followed by sulphate of magnesia, half an ounce; carbonate of magnesia, one drachm. His bowels in consequence were acted upon two or three times, but without any relief to the general symptoms.

The following day I gave him one grain of the podophyllin, which operated no less than twenty-four times! each of the motions being quite biliary. All the symptoms detailed above were now relieved. I then ordered him half a grain to be taken every other night, with twenty minims of dilute nitric acid three times a day, and within a week he was quite well.

Mrs. B—— came to me, suffering from jaundice. She complained of a dull pain and heaviness in the right side, pains in the shoulders and under the right scapula, loss of appetite, sleeplessness, and irritation and dryness of skin. I ordered her an emetic, to be followed by calomel, four grains; extract of colocynth, six grains; and sulphate of magnesia, half a drachm; carbonate of magnesia, one scruple, in peppermint water, three times a day. The bowels were freely acted upon; but the stools were not biliary, and no relief was thereby afforded to the symptoms.

On the fourth day after I had seen her, I prescribed one grain of podophyllin, to be taken at bedtime, which operated ten times, causing copious biliary evacuations. The podophyllin was repeated every second night in half-grain doses, with twenty minims of dilute nitric acid and one drachm of liquor of taraxacum three times a day. In ten days she was perfectly well.

In the other cases in which I have tried podophyllin, the mode of treatment was similar to that described, and with the same good results. To test its properties negatively, I have given it repeatedly where there was no indication for its specific use, and even in full doses it had no effect whatever. All my experience, moreover, goes to show that it exerts its action best alone, and requires no auxiliary. Your obedient servant,

Clarendon-villas, Maidmay-park, May, 1862. JAS. WILLIAMSON, M.D.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Tilt; Dr. Geo. Harley; Dr. Jas. Risdon Bennett; Dr. Macloughlin; Dr. Eastwood; Mr. Dickins n, Rangoon; Mr. Fred. Nathan, Devonport; Mr. J. C. Sargeant; Dr. Chas. Clay, Manchester; Mr. James Price, Hereford; Mr. Rimmel; Dr. Fraser, Newfoundland; Mr. M'Whinnie; Mr. Sheppard; Mr. Fenton, (with enclosure;) Mr. Waller, Flegg Burgh; Messrs. Curtis and Co.; Mr. Evans, New Quay; Dr. Greig, Dundee; Mr. Lonttit, Gorebridge, (with enclosure;) Mr. H. A. Smith; Mr. Dean, Slaithwaite, (with enclosure;) Mr. G. Lovejoy, Reading; Mr. Martin, Fulham; Mr. Boden, Smalley; Mr. W. Winstanley, Rugeley, (with enclosure;) Mr. Cork, Powick; Mr. Parsons, Leicester; Dr. Allen, Lancaster; Mr. E. Roberts, Pontypridd; Mr. Yeld, Stockport; Mr. B. Baker, Ostend, (with enclosure;) Mr. W. Vigers, Marlborough; Mr. T. Ross, Wakefield; Dr. Bantock, Chester; Mr. J. Brown, Norwich; Mr. D. Freeman, (with enclosure;) Mr. E. Bennett; Dr. Johnson, Tettenhall; Mr. Gray, Yarmouth; Mr. Braund, Martock, (with enclosure;) Mr. Stedman, Cullompton, (with enclosure;) Mr. C. O'Neill; Mr. D. Walker; Mr. Woodhead, Coxwold, (with enclosure;) Mr. Stone; Mr. Harris, Chipping Norton; Mr. W. Pearce; Rev. R. Pritchard, Stratford-on-Avon; Dr. Constable, Bridgeton, (with enclosure;) Mr. Arkle, Rothbury, (with enclosure;) Mr. Corin, (with enclosure;) Mr. Hunter, Margate, (with enclosure;) Mr. Fuller; M.R.C.S., Lowestoft; D. G. H.; Royal Institution; A Constant Reader; A Looker-on; Honestas; The Governor; Beta, Newcastle-on-Tyne; Ethnological Society; Inquirer; Oxon.; D. D.; A Hater of Humbug; H. G. W.; M.R.C.S.; Medicus; F.; &c.

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THE LANCET (p. 318) writes: "The Green, imported by Horniman & Co., not being coloured with Prussian blue, &c., is an olive hue; the Black is not intensely dark." Wholesome, as well as Tea "always good alike," is thus obtained. In packets. Gould, 198, Oxford-street; Pursell, 80, Cornhill, London—Smith and Sons, Norwich—Reinhardt and Sons, Leeds—Ferris, Townsend, Lamotte, & Beorne, Bristol—Banks and Son, Birmingham. Agents (chiefly CHEMISTS) in every town.

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DUNN'S ESSENCE of COFFEE, 1s. and 2s. per Bottle,
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